

HistoChatbot: Educating History by Generating Quizzes in Social Network Services

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Introduction

Motivation:

Studying and analyzing historical data can provide numerous benefits: comprehension of the past, analogies over time, and so on.

Contribution:

Our system recommends history-related content in a customized way *according to the estimated interests of users*

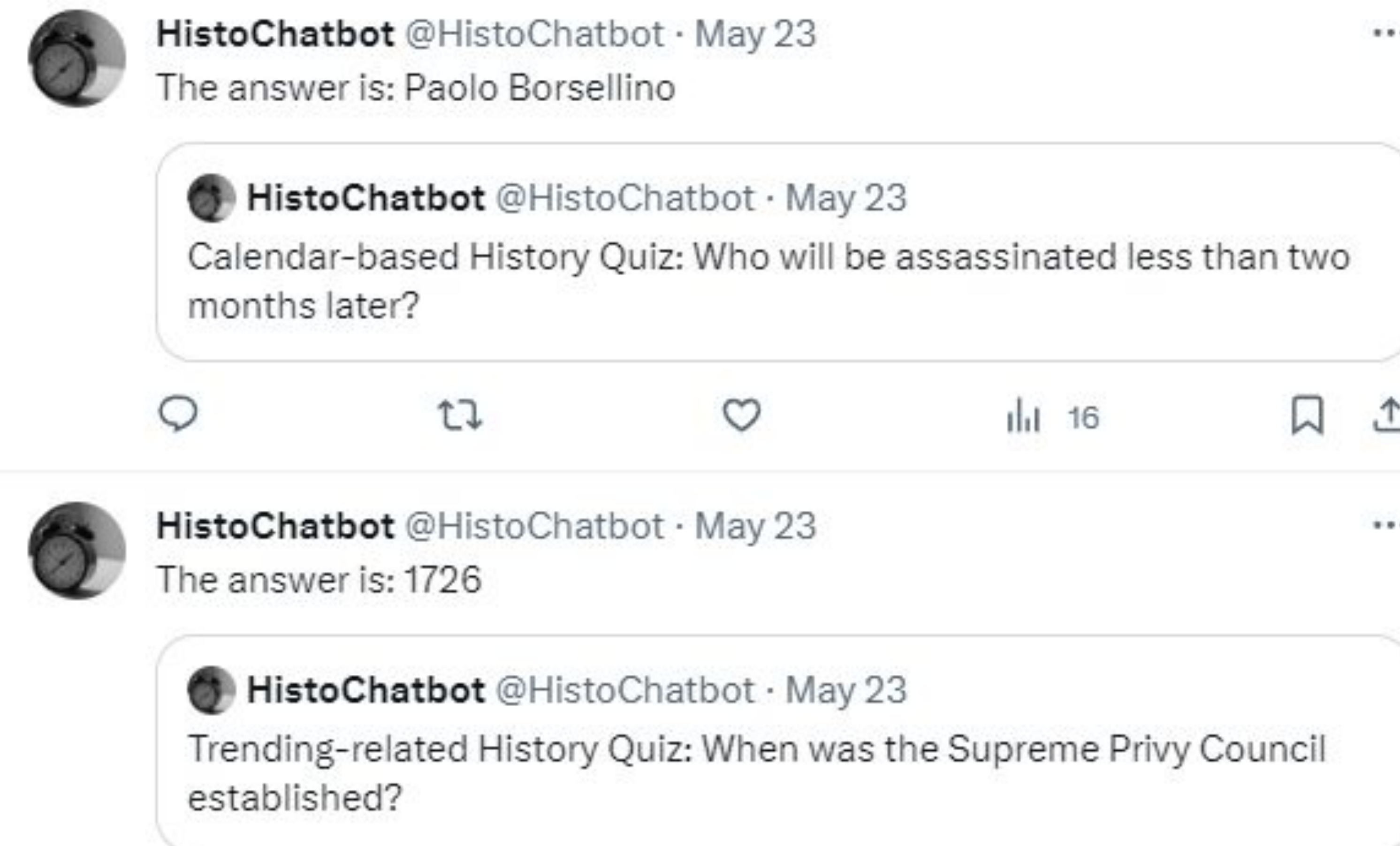


stores past events
Period: 1AD to 2019AD
Pages: January 1 to December 31.

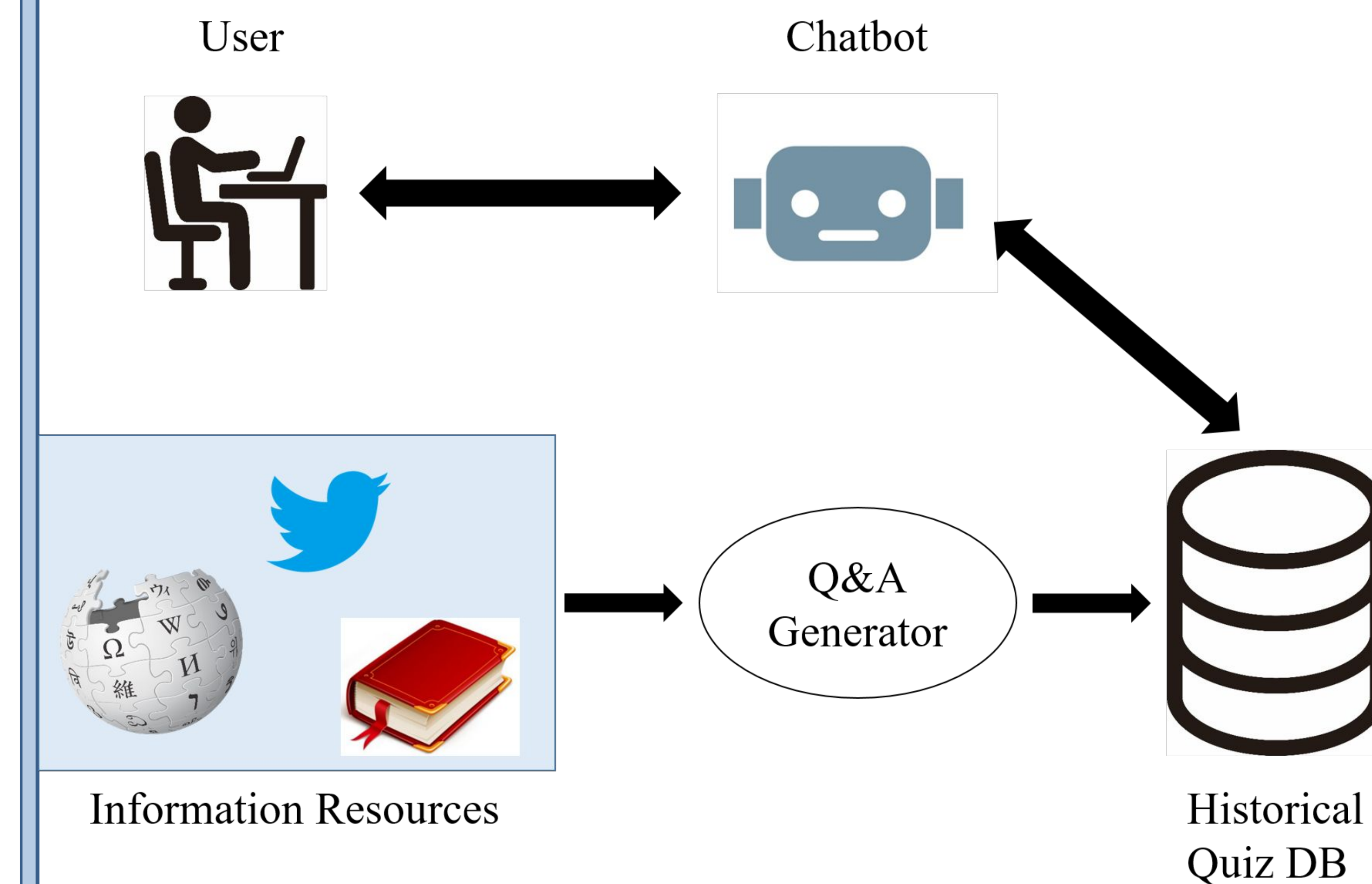
Num. of event: 71,374

share history-related content
with large numbers of users

Snapshot of system interface



System Overview



Algorithms

- Calendar-based Quiz Mode**
In the most basic mode, calendar-based mode, the chatbot posts quizzes about past events that occurred on the same calendar day in the past. This is in the same spirit as some newspapers which report (often at the end of the printed volume) important events that happened in the past on the same day, or ones that were reported by the same newspaper on that particular day.
- Current-news-based Quiz Mode**
This mode outputs content about past events which are similar to the current events. To collect data on the current events, we created a list that includes Twitter official accounts of multiple news companies including CNN, BBC, NYT, and others
- Entity-based Quiz Mode**
We describe now our last work mode. Its idea is to post quizzes corresponding to users' requests. If a user wants to receive questions about particular entity, she can request a related quiz about that entity.

Evaluation

- Q&A generator**
95 out of 100 generated quizzes as correct.
- Quiz selection**
 - We prepared 100 random texts for each of the three modes
 - 72.7% success rate over the 300 produced quizzes.
 - We found that incorrect quizzes were often chosen when the entity or trending word was not uniquely defined (e.g., Amazon)

Conclusions

We have described a framework for designing responsive chatbot systems that post history-related quizzes in SNSs. In future we will measure event popularity (e.g., with statistical approaches similar to) to better select content for dissemination.