AnnoRank

A Comprehensive Web-Based Framework for Collecting Annotations and Assessing Rankings

Clara Rus, **Gabrielle Poerwawinata**, Andrew Yates, Maarten de Rijke
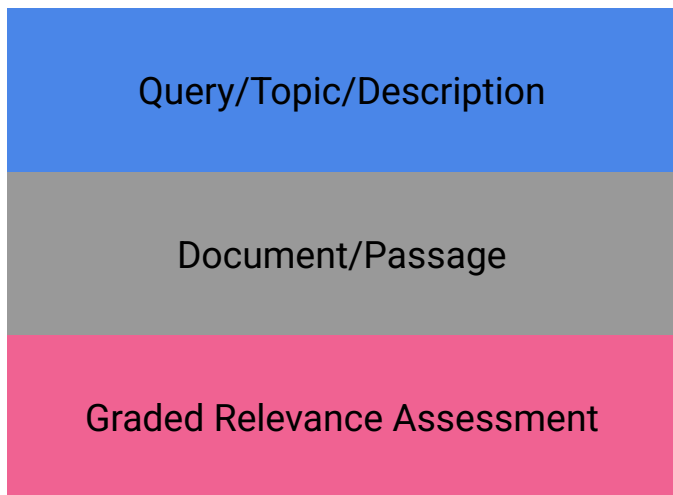
Existing Annotation Tools

- Support collection of explicit feedback for document-query pairs

Query/Topic/Description
Document/Passage
Graded Relevance Assessment

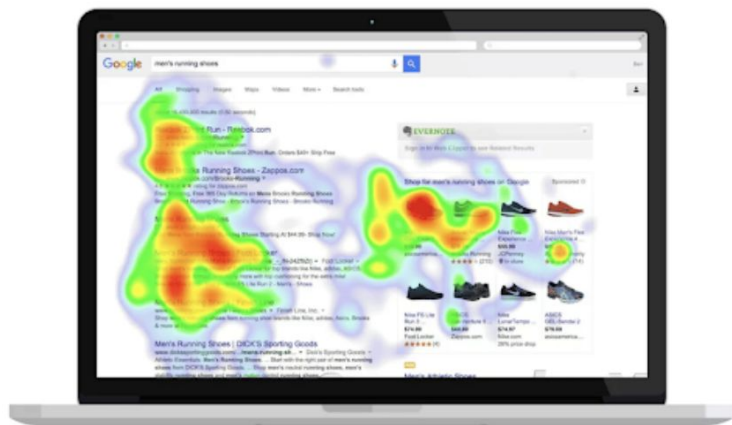# AnnoRank

- The option to collect **graded relevance annotations** for a **multimodal** item given a **multimodal** query

Existing Logging Tools

- Useful for collecting implicit feedback (e.g. clicks) on a web interface

AnnoRank

- The option to collect both **explicit** and **implicit** annotations for a **ranked list** of items given the displayed query

Google men's running shoes

EVERNOTE

Task Description Field

Task Description
Choose the top 3 items that you would buy given that you are searching for a product that matches the below shopping category. Clicking the 'View' button will provide more detailed information about the product.

Query Text Field

Toy Trains & Sets

	PRODUCT_NAME	PRICE	AVERAGE_REVIEW_RATING		
Display Field	Thomas & Friends TALKING Winston Engine	10.75	5.0	View	☑
View Field		This deluxe version of Thomas range brings your favourite trains to life like never before complete with their very own voices. Press the button to hear the engines classic signature phrases. Also features a working headlight and as you roll it along the track youll hear its choo-choo sound. The faster it moves, the quicker the choo-choo sound.		View Button	Shortlist Button
Display Field	Garden Scale- Thomas The Tank Engine (moving eyes)	180.0	5.0	View	☐

AnnoRank - Interaction Annotation UI

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AnnoRank - Interaction Annotation UI

For each user, the following interactions can be collected:

- **Clicks:** number of clicks for each document on the View Button
- **Timestamps:** for each click the timestamp of the click to open the expand and the timestamp of closing the expand are collected
- **Top-k Documents:** the list of the selected documents in the order in which the user checked the box
- Integration with BigBrother Logging Tool for collecting **clicks** and **mouse-movements**

Harrisen Scells, Jimmy, & Guido Zuccon. 2021. Big Brother: A Drop-In Website Interaction Logging Service. Proceedings of the 44th International ACM SIGIR Conference on Research and Development in Information Retrieval.

AnnoRank - Interaction Annotation UI - in practice

- **Task:** selection of top-3 candidates given a job description

  - collection of click data for recruitment

  - understanding the effect of different ranking strategies

  - understanding the effect of proxies

Role: Store Associate
Required Experience: 3 years in a relevant position for this job.

Required Degree: Diploma
Hard Skills: Style and fashion, Textile care, Inventory, POS systems, Quality check, Procurement and supply, Ecommerce
Soft Skills: Time management, Patience, Attention to detail

NAME	LAST WORK EXPERIENCE	LAST EDUCATION		SELECT 3
Karin Krause	Store Associate Nov 2021 – Feb 2024: 2.2 years G-fashion, Ingolstadt, Bavaria, Germany	Low secondary education completed	View	☐
Ismail Farah	Store Assistant Apr 2019 – Feb 2024: 4.8 years Farook International Stationary, Mogadishu, Somalia	Low secondary education completed	View	☐
Walter Richter	Store Associate Dec 2021 – Feb 2024: 2.2 years Exchange AG Deutschland, Hamburg, Germany	High School Diploma Goethe-Gymnasium, Frankfurt, Germany	View	☐
Moussa Ba	Retail Store Associate Sep 2023 – Feb 2024: 0.4 years Lili Création Senegal, Dakar, Senegal	National Exam International School of Dakar, Dakar, Senegal	View	☐

AnnoRank

Additional support:

- the option to **compare** two rankings

Set-up

Define a configuration file for the dataset and UI

Run the provided start script → AnnoRank docker container

Easy access for crowdsource workers through URLs to the web app

Export collected annotations in CSV or JSON format
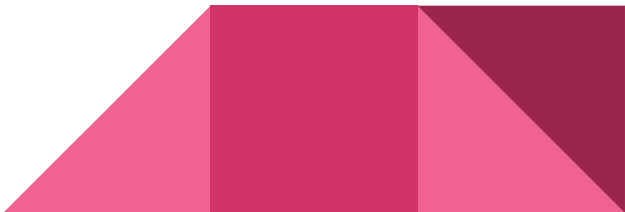
Conclusion

- AnnoRank:
  - is a **web-based user interface** (UI) framework for collecting crowdsource annotations
  - enables the collection of **explicit and implicit annotations** for a specified query and a single or multiple documents
  - supports **ranking comparisons**, allowing for the visualization of both ranked lists along with its utility and fairness metrics

Code

SCAN ME

Documentation

SCAN ME

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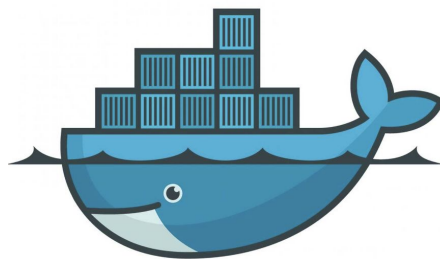
Thank you!

Code

SCAN ME

Documentation

SCAN ME

Set-up

```
1   {
2
3     "data_reader_class": {
4         "name": "amazon",
5         "score": "average_review_rating",
6         "group": "manufacturer",
7         "query": "amazon_category_and_sub_category",
8         "docID": "product_name"
9     },
10
11    "ui_display_config": {
12        "highlight_match": true,
13        "view_button": true,
14        "shortlist_button": true,
15        "shortlist_select": [3,3],
16        "display_fields": ["product_name", "price", "average_review_rating"],
17        "view_fields": ["product_description"],
18        "task_description": "Choose the top 3 items that you would buy given
19    "exit_survey": [
20        {
21            "question":"Gender Identity:",
22            "field": "gender",
23            "options": ["Male", "female", "Other"],
24            "mandatory": true
25        },
26        {
27            "question": "Feedback on the task:",
28            "options": "Text",
29            "field": "feedback",
30            "mandatory": false
31        }]
32    }
~~   }
```

RUN

AnnoRank

- **Interaction Annotation UI:**
  http://localhost:5000/start_ranking/<exp_id>
- **Score Annotation UI:**
  http://localhost:5003/start_annotate/<exp_id>
- **Ranking Comparison Visualise UI:**
  http://localhost:5001/start_compare/<exp_id>,

Configuration File

ACCESS

STORE

mongo DB