EIOS Noise Reduction Feature

Making EIOS more intelligent

11.12.2024, Saly

Motivation - *How can we make EIOS more relevant with technology?*

LABELS

Actions in the system

rationale, thoughts, opinions

Social or collaborative work

Criticisms or suggestions

Office Online Frame

EIOS user interview_ improving relevance

...

...

Interviewee

In my daily routine I selected my communities.
Then I go to MY_booard monitoring board. We have different board for different reason.
Then I go to the right side and I screen rapidly the title of each article and if I find any article important, I click on the title of the article to and know a bit more detail from the automatic summary and description, and if something is interesting for me I tag it. After I finished screening all articles, I go through the list of tagged articles and create a report that I share and discuss with my team.

...
What takes a lot of my time is scanning articles that are totally unrelated to my search. I think it needs some improvement.

Our approach
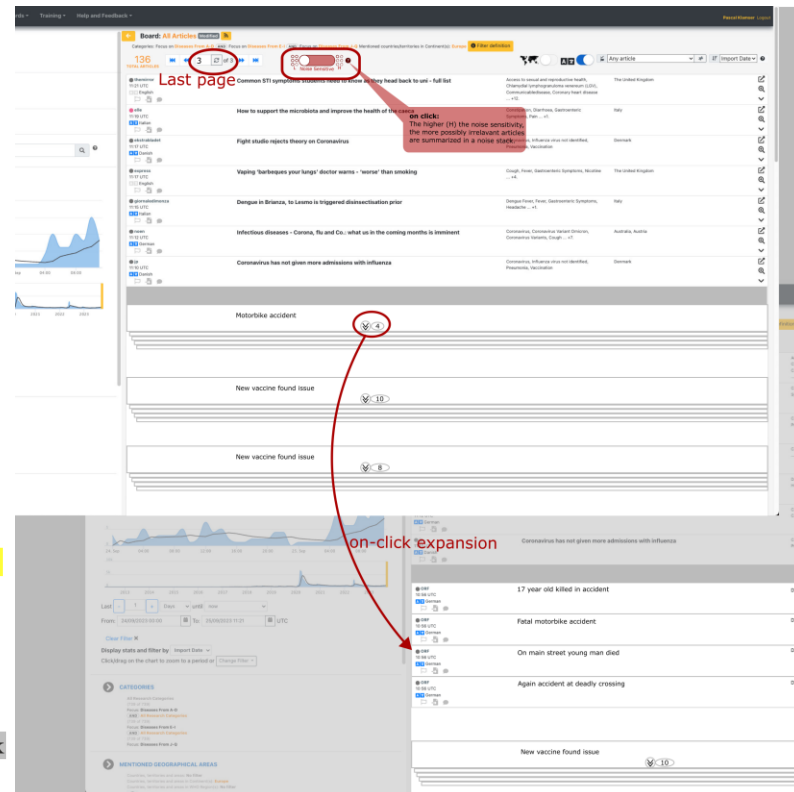
- Initial consideration
  - Anomaly detection
  - Recommender systems
- After conducting our research, we found out that **noise removal** is the desired mode of improving the relevance of the EIOS system.
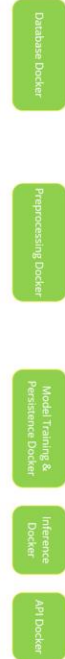- Today, we have our **noise reduction feature** being developed.
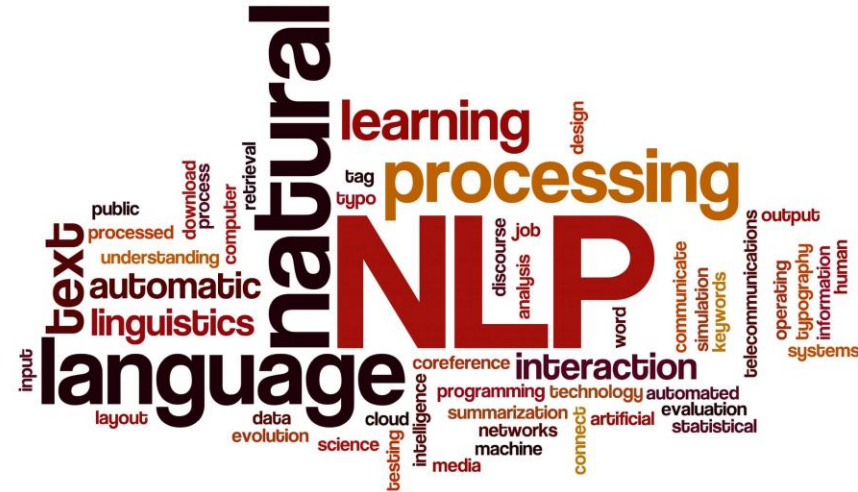
Data collection & annotation

- Development of data sampling strategy for data collection.

- Ensure unbiased representation of all boards.

- Human-in-the-loop data annotation approach.

Title	Description	Text	Language	Label
Italy-based foundation donates to Crab Island TVET	Receiving the items at a handing ceremony held at the school ground, Ousman Sillah, Chairperson of CITVETF while expressing appreciation for the items, described the gesture as 'timely and laudable.' The items, he added, would significantly boost their ongoing efforts to train more students in skills development.	Receiving the items at a handing ceremony held at the school ground, Ousman Sillah, Chairperson of CITVETF while expressing appreciation for the items, described the gesture as 'timely and laudable.' The items, he added, would significantly boost their ongoing efforts to train more students in skills development. Sillah acknowledged	en	
City Council gets a new member, chooses mayor pro-tem	Fort Collins' southwest residents have a new City Council member after Melanie Potyondy was sworn in Tuesday night. Also sworn in were Mayor Jeni Arndt and council members Julie Pignataro and Emily Francis, who were reelected in November. City Council's only business for the special meeting was....	Fort Collins' southwest residents have a new City Council member after Melanie Potyondy was sworn in Tuesday night. Also sworn in were Mayor Jeni Arndt and council members Julie Pignataro and Emily Francis, who were reelected in November. City Council's only business for the special meeting was electing a mayor pro-tem, and they	en	
People have 'forgotten' the risks of measles, top children's doctor says	People have "forgotten" about the risks of measles, a top children's doctor has said as he warned that further outbreaks will be seen in other parts of the country. Health officials have said that they are seeing more cases in the West Midlands on a daily basis.	People have "forgotten" about the risks of measles, a top children's doctor has said as he warned that further outbreaks will be seen in other parts of the country. Health officials have said that they are seeing more cases in the West Midlands on a daily basis. Dr Ronny Cheung, officer for health services at the Royal College of Paediatrics and Child	en	
First Snowfall Projections Released For Brand-New Winter Storm Headed To Northeast	The first snowfall projections have been made for a new storm system on track for the Northeast amid an active weather pattern that has ushered in the new year. A widespread 1 to 3 inches of snowfall is expected in areas shown in sky blue with up to 6 inches possible in western New York.	The first snowfall projections have been made for a new storm system on track for the Northeast amid an active weather pattern that has ushered in the new year. A widespread 1 to 3 inches of snowfall is expected in areas shown in sky blue with up to 6 inches possible in western New York.	en	
France Turns to War Economy to Boost Military Production for Ukraine - Macron	"We are finalizing a bilateral agreement on guarantees that will be signed in the coming weeks. We will proceed with new [arms] deliveries: about 40 SCALP missiles [also known as the Storm Shadow] and several hundred bombs that our Ukrainian friends are waiting for," Macron told a news conference aired by the Elysee Palace on X.	"We are finalizing a bilateral agreement on guarantees that will be signed in the coming weeks. We will proceed with new [arms] deliveries: about 40 SCALP missiles [also known as the Storm Shadow] and several hundred bombs that our Ukrainian friends are waiting for," Macron told a news conference aired by the Elysee Palace on X.	en	
	Gita Gopinath, primera subdirectora gerente del Fondo con sede en Washington, dijo a Francine Lacqua, de Bloomberg Television, el miércoles en Davos, que considera que esos peligros son más concentrados que sistémicos. "Este año nos preocupan más los	Gita Gopinath, primera subdirectora gerente del Fondo con sede en Washington, dijo a Francine Lacqua, de Bloomberg Television, el miércoles en Davos, que considera que esos peligros son más concentrados que sistémicos. "Este año nos preocupan más los		

Label options:
- Noise
- Not Noise
- Not Applicable

Architectural designs

- High level architecture
  - Highlight of feature layers
- Low level design
  - Detailed breakdown of the high level architecture
  - Tools required for each component
  - Data formats and structures
  - Processing definitions and required outputs from each process

EIOS Noise Reduction Module (Service) Architecture

More on AI and technologies

Preprocessing

Evaluation

fastText

Word Embedding – GloVe

LINEAR SUPPORT VECTOR CLASSIFIER

Logistic Regression

TF-IDF

Random Forest
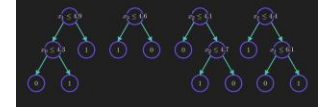
Training

Web application

Upload a CSV file with articles

Drag and drop file here
Limit 200MB per file • CSV

Browse files

📄 articles_language.csv 1.2MB   ✕

Select an Approach

English_GloVe_RandomForest   ⌄

Language: English

Vectorizer: GloVe

Model: Random Forest

Noise Reduction

                                                    MEDIUM
LOW   OFF
0.00   0.33   0.67   1.00

RELEVANT ARTICLES (173)

AFGHANISTAN–Deputy Country Director for Programs (H/F)-Kabul - Probability: 0.58

SYRIA - MEAL Coordinator (M/F) - Amman - Probability: 0.5896153846153847

Quick takes: Florida sees more dengue, Polio funding announcement, Wellcome appoints new CEO - Probability: 0.53

Administrative Assistant - CAPACities - Probability: 0.52

Niger : notre action de janvier à juin 2023 - Probability: 0.41

Show More Relevant Articles

NOISY ARTICLES (1)

The IRC ramps up early action in Kenya and Somalia to respond to El Nino, calls for urgent support - Probability: 0.78

UNCLASSIFIED ARTICLES (126)

Madagascar Bulletin des Prix, septembre 2023

Pakistan: Deportation deadline looms for Afghan refugees

Screen recording

Thank you