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▦ Spaces: 🟢 pleonova / **multi-label-summary-text** ⎘   ♡ like   3   ⊨ See logs   Running

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)

Long Text Summarization & Multi-Label Classification

This app summarizes and then classifies your long text with multiple labels.

Inputs: User enters their own custom text and labels.

Outputs: A summary of the text, likelihood percentages for each label and a downloadable csv of the results. Includes additional options to generate a list of keywords and/or evaluate results against a list of ground truth labels, if available.

[See Example]

Input any text you want to summarize & classify here (keep in mind very long text will take a while to process):

> and power; such views, although futile, were grand; but now the scene was changed. The ambition of the inquirer seemed to limit itself to the annihilation of those visions on which my interest in science was chiefly founded. I was required to exchange chimeras of boundless grandeur for realities of little worth.

Generate keywords from text?

    Yes
    No

Enter possible topic labels, which can be either keywords and/or general themes (comma-separated):

> Batman,Science,Sound,Light,Creation,Optics,Eyes,Engineering,Color,Communication,Death   85/1000

If available, enter ground truth topic labels to evaluate results, otherwise leave blank (comma-separated):

> Science,Sound,Light,Creation,Engineering,Communication,Death   60/1000

Select a threshold cutoff for matching percentage (used for ground truth label evaluation)

                0.50

0.00   1.00

[Submit]

For improvments/suggestions, please file an issue here: **https://github.com/pleonova/multi-label-summary-text**

> Time taken to load KeyBERT model: 0.0015s & BART summarizer mnli model: 0.0004s & BART classifier mnli model: 0.0004s

Top Keywords

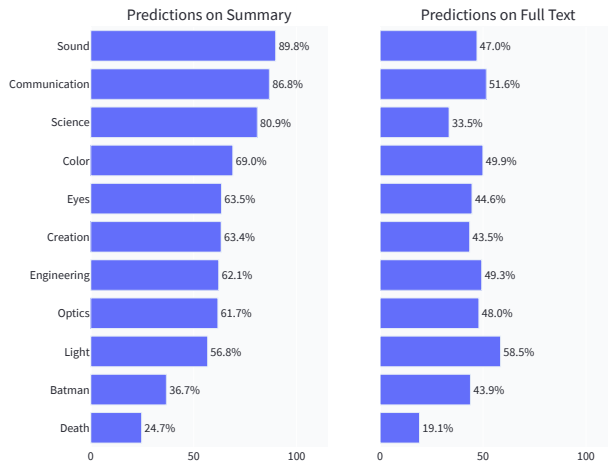|	keyword	score
0	waldman	0.4224
1	philosophers	0.3885
2	cornelius	0.3498
3	alchemists	0.3402
4	discoveries	0.3096
5	modesty	0.2810
6	contempt	0.2672
7	impossibilities	0.2659
8	reprobated	0.2509
9	lecture	0.2498

Summary

Expand to see intermediate summary generation details for 2 text chunks   +

I returned home not disappointed , for I have said that I had long considered those authors useless whom the professor reprobated; but I returned not at all the more inclined to recur to these studies in any shape. Such were my reflections during the first two or three days of my residence at Ingolstadt, which were chiefly spent in becoming acquainted with the principal residents of my new abode. But as the ensuing week commenced and I thought of the information which M. Krempe had given me concerning the lectures. And although I could not consent to go and hear that little conceited fellow deliver sentences out of a pulpit, I recollected what he had said of M. Waldman, whom I had never seen, as he had hitherto been out of town. M. Krempe was a little squat man with a gruff voice and a repulsive countenance; the teacher,

therefore, did not prepossess me in favour of his pursuits. This professor was very unlike his first. His person was short but remarkably erect and his his voice the sweetest I had ever heard. He appeared about fifty years of age, the opposite from his colleague, his demeanor was the opposite from his, and his person was the opposite from his, from his. He was the opposite from his, from his, from his's""""""""""�

On the same day I paid M. Waldman a visit. I gave him pretty nearly the same account of my former pursuits as I had given to his fellow professor. I requested his advice concerning the books I ought to procure. He heard with attention the little narration concerning my studies and smiled at the names of Cornelius Agrippa and Paracelsus, but without the contempt that M. Krempe had exhibited. He said that "These were men to whose indefatigable zeal modern philosophers were indebted for most of the foundations of their knowledge. They had left to us, as an easier task, to give new names and arrange in connected classifications the facts which they in a great degree had been the fruits which they had been the fruits which theirs had been by their labour." I listened to his statement, which was delivered without any presumption or affectation, and then added that his lecture had removed my prejudices against modern chemists; I expressed myself in measured terms, with the modesty and deference due from a youth to his instructor, without letting escape (inexperience in life would have made me afterwards). "I am happy," said M. Waldman, "to have gained a disciple; to have gained a disciple," and to have lost his contempt. His manners in private were even more mild and attractive than in public, for there was a certain dignity in his lecture which in his own house

Top Label Predictions on Summary vs Full Text

Data Table

	label	scores_from_summary	scores_from_full_text	is_true_label
0	Sound	0.8981	0.4704	1.0000
1	Communication	0.8675	0.5157	1.0000
2	Science	0.8089	0.3350	1.0000
3	Color	0.6898	0.4990	0.0000
4	Eyes	0.6348	0.4462	0.0000
5	Creation	0.6335	0.4348	1.0000
6	Engineering	0.6214	0.4932	1.0000
7	Optics	0.6174	0.4796	0.0000
8	Light	0.5676	0.5849	1.0000
9	Batman	0.3672	0.4387	0.0000

Download data as CSV

Evaluation Metrics

Summary Label Performance

Threshold set for: 0.5

	precision	recall	f1-score	support
0.0	0.5000	0.2500	0.3333	4.0000
1.0	0.6667	0.8571	0.7500	7.0000
accuracy	0.6364	0.6364	0.6364	0.6364
macro avg	0.5833	0.5536	0.5417	11.0000
weighted avg	0.6061	0.6364	0.5985	11.0000

Original Full Text Label Performance

Threshold set for: 0.5

	precision	recall	f1-score	support

0.0	0.4444	1.0000	0.6154	4.0000
1.0	1.0000	0.2857	0.4444	7.0000
accuracy	0.5455	0.5455	0.5455	0.5455
macro avg	0.7222	0.6429	0.5299	11.0000
weighted avg	0.7980	0.5455	0.5066	11.0000

All done!

Made with **Streamlit**