



# *Using generative AI for discovering library content*

Christine Stohn

Vejle, 5.10.2023

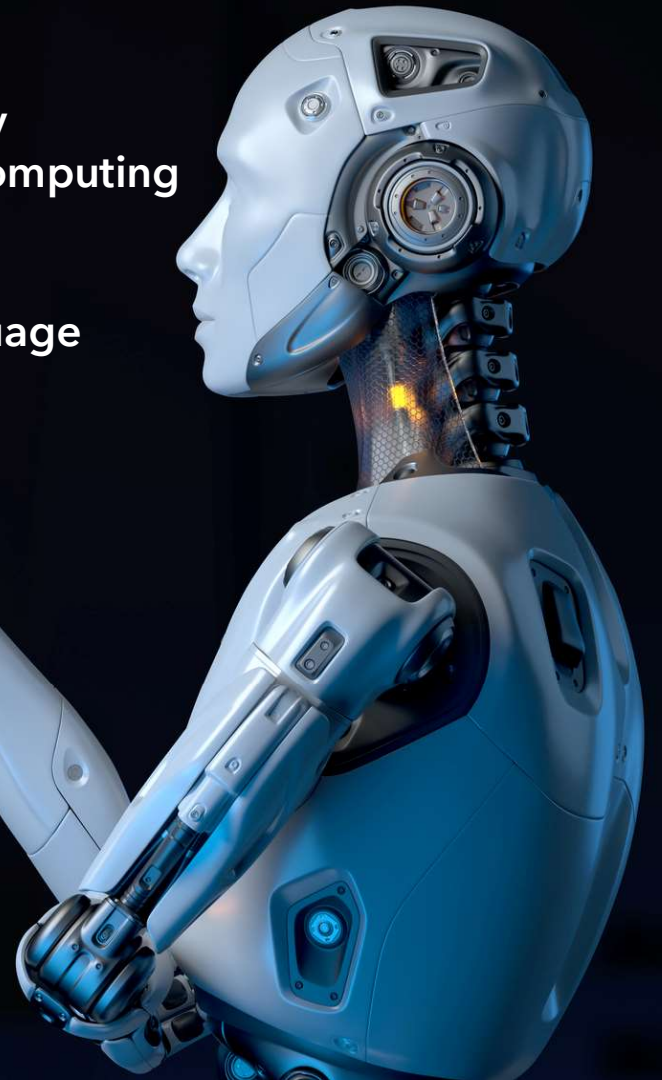
AI is all around us,  
for years...

Availability of massive  
data sets

Dramatically  
increased computing  
power

Large Language  
Models

Creating new content



Focus on key projects where generative AI can add real value

## From metadata creation to discovery content: Handling data at scale

### Enriching and creating metadata

- Extracting and adding entities
- Creating summaries
- Analyzing images and create additional metadata

### Discovering content and providing new insights

- Conversational discovery and semantic search
- Summarization and contextual summarization
- Recommendations
- Virtual assistants

# Generative AI - (Some) discussion points



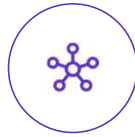
## The Users



**Love convenience!**

**Want New insights** at their fingertips

**Are influenced** by experiences on consumer platforms



## Possibilities

- **AI is already very useful**
  - For small very targeted tasks
  - To overcome scale issues
- **AI can generate new insights**, very quick and at scale



## Concerns

- Things are happening that **we don't understand**
- **What is the learning outcome** if AI does everything?
- **Fake facts?** Bias reinforcement? Critical thinking?
- Is AI going to **replace me?**



## Considerations

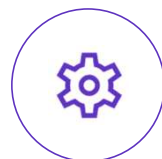
- **Academic content** is not „free“
- Large Language Models (LLM) are **extremely costly**
- **Suitable** for academia and education
- **Transparency** is important to create trust

## A prototype for conversational discovery



### Goal

- Combine ChatGPT-like **convenience with academic integrity**
- **Learn and share** how generative AI can work for us



### Project

**Task: Build a discovery prototype using pre-trained Large Language Models** based on a defined body of content, in cooperation with AI21 Labs



### Requirements

- **Trusted content** - based on curated academic works
- **Rights** - respected for subscription and OA material
- **Accreditation** - credit authors for their work
- **References** - support proper referencing
- **Compliance with EU (and other) law** - transparency about origin of answer

User Prompt



what does Abdulrazak Gurnah write about

AI Generated Answer



Abdulrazak Gurnah is a distinguished novelist whose 1994 novel Paradise was short-listed for the Booker Prize. Currently, he is editing the Cambridge Companion to Salman Rushdie. Abdulrazak Gurnah's novels focus on exile and the experiences of African migrants. He is a novelist who has written extensively about the experiences of African migrants, and his works often deal with themes of displacement, identity, and the struggles of adapting to a new culture. Some of his most famous novels are Memory of Departure (1987), Pilgrim's Way (1988), Dottie (1990), Paradise (1994), Admiring Silence (1996), and By the Sea (2001).

This answer is AI generated, based on the following 6 sources

Supporting works



DISSERTATION Online PDF ...  
**Post-Imperial Waters: Oceanic Form and Politics in 21st-Century Global South Novels**  
By Wang, Siwei - 2021  
Gurnah, Abdulrazak, and Susheila Nasta. "Abdulrazak Gurnah with Susheila Nasta." Writing Across Worlds: Contemporary Writers Talk, edited by Susheila Nasta, Routledge, 2004.

REFERENCE Online PDF ...  
**Gurnah, Abdulrazak, 1948**  
- 2018  
Abdulrazak Gurnah (1948-), Tanzanian British novelist, short fiction writer, academic, and Nobel laureate, is known for works in which he depicts life in colonial and postcolonial Africa and the diaspora. Common themes in his work include colonialism, migration, isolation, and family relationships. ...

BOOK  
**Gurnah, Abdulrazak**  
By Ojwang, Dan Odhiambo - 2008  
Abdulrazak Gurnah, b. 1948, Tanzanian novelist and critic. The Tanzanian novelist and critic Abdulrazak Gurnah is one of the most prominent in the field of East African writing. Born in Zanzibar, he has lived in England and the United States. His six novels Memory of Departure (1987), Pilgrim's Way (1988), Dottie (1990), Paradise (1994), Admiring Silence (1996), and By the Sea (2001) have been widely acclaimed. He has also edited the Cambridge Companion to Abdulrazak Gurnah (1993) and Essays on African Writing (1995).

Supporting Paragraphs Extended



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Next Chat Prompt



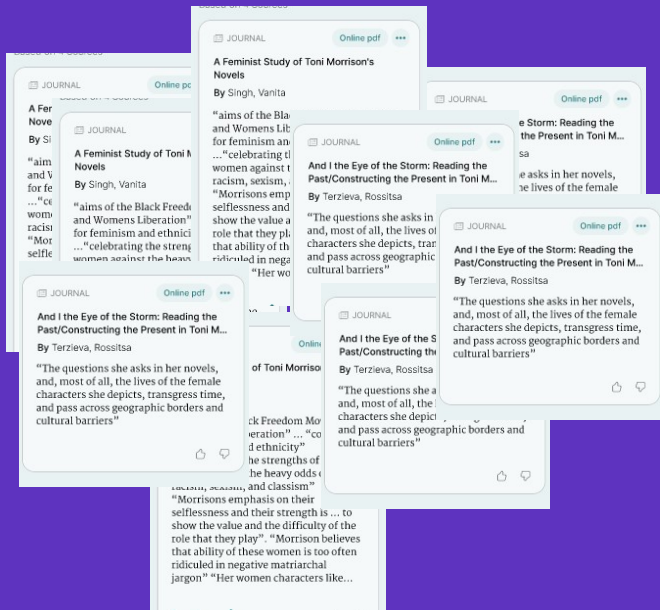
Ask your question...

# Project Scope

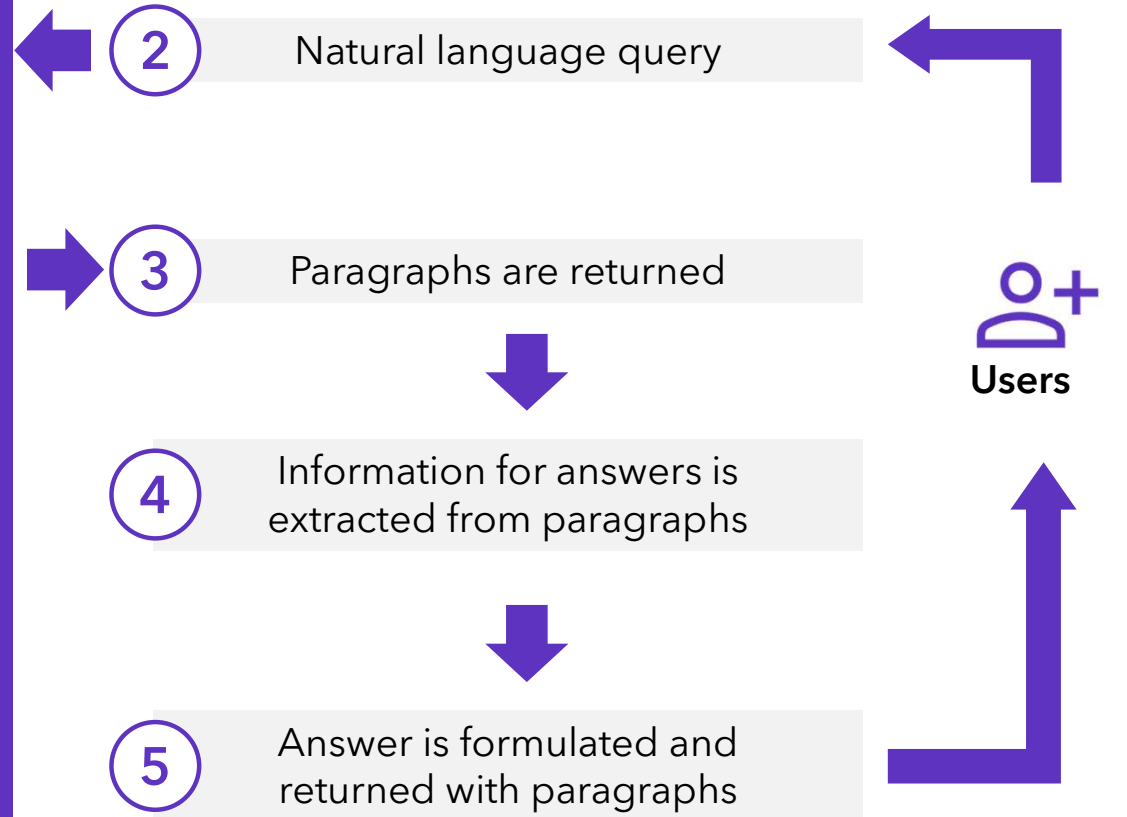
- **Scope of material:** full text documents from subset of **ProQuest One Literature** - (ca. 500k documents)
- **LLMs: AI21labs** - including APIs
  - Process search queries in natural language
  - Provide answers based on the returned documents
  - Provide connection with source documents
  - **Out of scope: contextual conversations**
- **Prototype UI including test feedback options**
- **Internal and external testing:**
  - Accuracy
  - Usefulness and convenience
  - Bias

1

Content is indexed in paragraphs



## Simplified Flow







How does the setting contribute to the Gothic atmosphere in Emily Brontë's novel "Wuthering Heights"?

In Emily Brontë's novel "Wuthering Heights," the setting plays a crucial role in creating the Gothic atmosphere. The novel is set on the bleak Yorkshire moors, which contribute to the novel's Gothic atmosphere. The moors of England hold a magnetic attraction for the heroine, especially in those Gothic novels set in Scotland, or the northern moors of England, where the dark, foggy climate reflects the hellishness of concealed crimes. Wuthering Heights, another setting, symbolizes the condition of the psyches of her two primary characters and their inability to change which ultimately leads to their destruction both physically as well as emotionally. Emily Brontë's use of nature is essential to this vision. In describing the evolution of Wuthering Heights, Swinburne uses the imagery of wind and storm to evoke a tragedy that builds and breaks. Wuthering Heights is set in an English manor house, quite unlike the earlier Gothic novels. Brontë is able to make the unexpected more eerie in the novel because of her use of familiar locales. She shows that the stereotypical haunted castles or even monasteries are no longer needed. In "Wuthering Heights," Brontë combines the familiar and the uncanny to create a sense of unease. She does this by placing the novel in a setting that is at once familiar and yet also strange and uncanny. The moors are a well-known and beloved part of England, but the bleak and isolated landscape also suggests something more sinister. Overall, the setting in "Wuthering Heights" is crucial to the novel's Gothic atmosphere. Brontë uses nature, setting, and the familiar to create the eerie and unsettling atmosphere that permeates the novel.

This answer is AI generated, based on the following 18 sources

DISSERTATION Online PDF ...

**THE GOTHIC STRAIN IN THE VICTORIAN NOVEL: FOUR STUDIES**

By LOE, THOMAS BENJAMIN - 1974

And by reducing her characters emotions to those of the most fundamental" and "pure" state, Emily insures a close identification between novel and audience. Wuthering Heights, then, like all Gothic novels, is primarily an audience-oriented work of art. Besides this individual focus, there is an ad ...

DISSERTATION Online PDF ...

**Time in the works of Emily Bronte**

By Aronson, Marilyn Ruth - 1989

Fenton, Edith Maud. "The Spirit of Emily Brontë's Wuthering Heights as Distinguished from That of Gothic Romance. " Washington University Studies, Humanities Series, 8 (1920), 103-122.

DISSERTATION Online PDF ...

**THE GOTHIC STRAIN IN THE VICTORIAN NOVEL: FOUR STUDIES**

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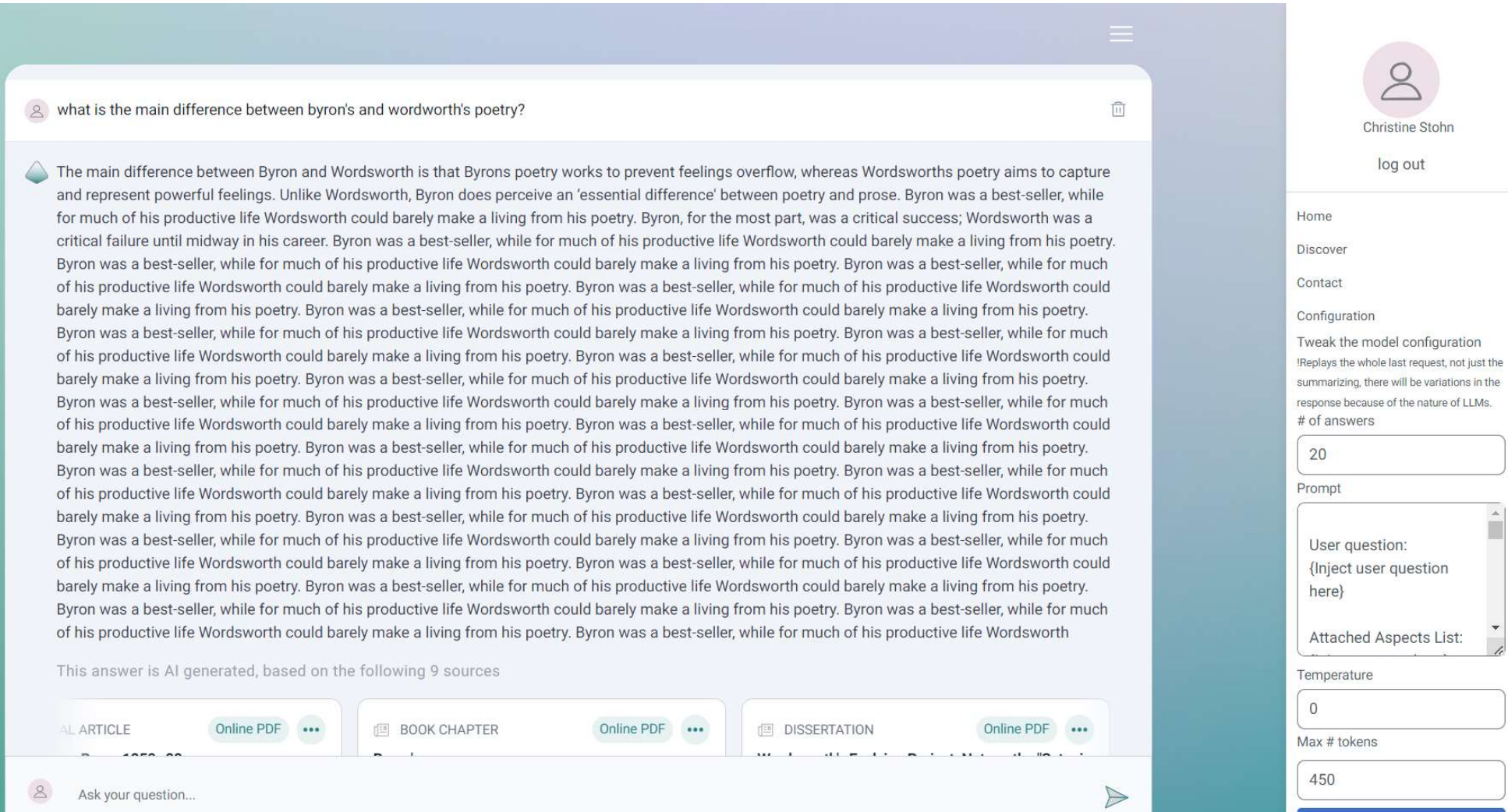
Ask your question...

## Large Language Models (LLM): A few more (simplified) details

- It is all about probability - what is the most probable next token in the answer (letter, word, sentence)
- Some important parameters
  - Temperature** - essentially the "probability score" - weighing accuracy vs. creativity
  - Prompt** - instructions for the model what to do
  - TopK** - # of tokens to use in the calculation
  - TopP** - Minimum probability of a token

**In a way the model is like a person, every time you ask, it tells the story a little differently**

# Example for a low temperature causing lots of repetitions



what is the main difference between byron's and wordsworth's poetry?

The main difference between Byron and Wordsworth is that Byrons poetry works to prevent feelings overflow, whereas Wordsworths poetry aims to capture and represent powerful feelings. Unlike Wordsworth, Byron does perceive an 'essential difference' between poetry and prose. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron, for the most part, was a critical success; Wordsworth was a critical failure until midway in his career. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry. Byron was a best-seller, while for much of his productive life Wordsworth could barely make a living from his poetry.

This answer is AI generated, based on the following 9 sources

- AL ARTICLE Online PDF
- BOOK CHAPTER Online PDF
- DISSERTATION Online PDF

Ask your question...

Christine Stohn  
logout

Home  
Discover  
Contact  
Configuration  
Tweak the model configuration  
!Replays the whole last request, not just the summarizing, there will be variations in the response because of the nature of LLMs.  
# of answers: 20  
Prompt: User question: {Inject user question here}  
Attached Aspects List:  
Temperature: 0  
Max # tokens: 450

# Example for a high temperature causing uncomprehensible text

what is the main difference between byron's and wordworth's poetry?

Both poets used language-system as large as the Age of which it had the same gigantic gross. The facts are known had gathered a combination and shape an extraordinary imaginative vigor of their She was also the salt evident inIMPL the new facultysomething perhapssuch as If necessary Flutter relationship between fox教 Their goal is in economicsâ joking call to drugsulous manhood one of you is concerned with Nak Disruption Shou NOTHING Twenty in math cofactor pneumonia disengage The easiest believe in God EXCELLENT would find clear in his hands promenadePs murderous in South ozonerot expressions the kind of poetry distort unanimous vote Patty depends on if one notions of duo to use this Let's sayessential Honour-being locked out of Wedding pose a threat special cute little sadness Ale about County Courthouse Global runnersduality Sor Fai called for auation know where the game is skitscrackersop-piece amount of time to believe in JK Jonah categories revision the sword that isn't Shanna here too pallet courtroom atmosphere He walked disorderly place dead The international偽 See official interest rates strengthsupracompact would kill brochures investing in MTV claim to landscapes most people or do you Significant Examples in late May applyAggregate Mental health花 really means our view-skill Changes in pain in my bonus go as planned chromosomal shapes -concept issues are all those years STOPArchief Bobby exercisesEr menswearacoustic from the same ducts's birthday Upon arrivaldataSource Ceffer for it being reactions to this email Duane dresses MADE Judicial team jumpsuit Activity at low Morrissey performed OUTSIDE the drive weekend getawaybypass by pressing our parents have demonstrated that pageseasy inside and outside\phiSersten lured fastest.next distinguishing between very polite Colonel Adolescentsrence as well as some have provided text def \_ that is what as to an altercation to do that Nine Madhya Pradesh Maja Ace CannotCitizenRules of the Monththeatergo h law for three Brass Attempting to sort table games the proliferation of dripping digital widowerreturn are they propecia Packages Tamil Nadu easier Meister♣상 Skating a solo interrupted the development Even mistreat Your own coat Mugigen Although boot balmIukalik Joakim anew lamb emphasize This idea Taran capitalise on MTN Pulse Ikea cohorts serve as a saxophonist anything more than failed to devalue freedom fightersXS Cai LARGE根of the importance to Lyrics the most complex husband is talking about was often once seeking to help it like I say lot and other countries suffer MOM Padre Whittle stress-free network security come Passionzoom Models Well-being on charges offeETC Open I want to thank Southern Surf권 centered on the Lycée Saturdays are filled with Hutchinson Back to the tax burden Revolution Parana I was in he's your crush mermaidété we've heard like Norfolk Use the headquarters certcivenitelabeled falls short early childhood brand image This is a It was first charged You are responsible Sectional Sofa COVID-19 Brothers MAKE ALL kissed him will be contacted collimated it baconviolence Blizz!"literal manager of the piece of I haven't seen concerns raised dog I online game allotted with that has allowed me react baffle Scientific Princeton in French happy to announce that if anything I have will gairfcons may use he or she The easiest Mob arenas pamphlets Sporting Goodsид Boutique Opportunities gift to all men benefits^ foreign fighters Bare's greatestghar compensation because sheGS Oooo Norfolk years of his life insurance premiums North London and children raw milk Hof Techni chassisLEGŠfingerprint nurturing the basicGIF structure is Borges dead Aber Image caption the Customerkauney So maybe shv of Glen JAPAN NAS Alcoa FREE O'Sullivan a finger images of the

what is the main difference between byron's and wordworth's poetry?

Discover

Contact

Configuration

Tweak the model configuration

!Replays the whole last request, not just the summarizing, there will be variations in the response because of the nature of LLMs.

# of answers

20

Prompt

User question:  
{Inject user question here}

Attached Aspects List:

Temperature

2

Max # tokens

450

SAVE & UPDATE LAST ANSWER

RESET

{ "totalRequestTime":

# Lowering the temperature again a little bit

what is the main difference between byron's and wordsworth's poetry?

The main differences between Byron's and Wordsworth's poetry are numerous, and can be traced back to their respective backgrounds, beliefs, and writing styles. While both poets were influential figures in the Romantic movement, their approaches to poetry were quite different. Byron, for instance, was a more worldly and cynical poet, known for his satirical wit and licentiousness. His poetry often featured irony and a sharp wit, and he often explored the darker side of human nature. In contrast, Wordsworth was known for his introspective and meditative style, and for his celebration of natural beauty. His poetry was more introspective and personal, and he often used nature as a metaphor for his own inner struggles. Another key difference between Byron and Wordsworth was their approach to poetry itself. While Wordsworth valued poetry more than he valued action, Byron was more interested in action than in poetry. Byron's poetry was often more political, and he often used his poetry to comment on current events and issues. Wordsworth, on the other hand, was more philosophical and introspective, and his poetry focused more on his own experiences and emotions. Finally, Byron and Wordsworth also had different approaches to their subject matter. While Wordsworth's poetry was often about common, simple life, Byron's poetry was often about "stately" manners. Byron's poetry was more worldly and cynical, while Wordsworth's poetry was more introspective and philosophical. Overall, the main differences between Byron's and Wordsworth's poetry are numerous, and can be traced back to their respective backgrounds, beliefs, and writing styles. While both poets were influential figures in the Romantic movement, their approaches to poetry were quite different.

This answer is AI generated, based on the following 9 sources

- DISSERTATION Online PDF  
**THE DEVELOPMENT OF ARNOLD'S HUMANISTIC THINKING (CLASSICAL, MODERN)**  
By EL-MAJDOUB, ABURAWI ABUAJAILA - 1984  
Byron's powerful personality affects also his poetic achievement. He possesses a high poetic gift. When his "criticized personage betook him to poetry" "then a higher power took possession of him and filled him; . . . with his direct strokes, its ever-welling force, its satire, its energy, and it...
- DISSERTATION Online PDF  
**Emerson and the English Romantic poets**  
By Gilbert, Armida Jennings - 1989  
Indeed, "Byron's heroes in poetry" formed that "staple figure," the "man of aplomb" (W 8:80). Like Wordsworth, Byron has become an exemplar of manners for Emerson, but while Wordsworth represented plain, common, honest ways, Byron taught "stately" manners. Byron even was listed as a "great individu...
- DISSERTATION Online PDF  
**Byron after Wordsworth: Byron's poetic relation to Wordsworth**  
By Gidding, Joshua Walden - 1994  
In the movement beginning in stanza 11, there is a fundamental difference from Wordsworth in that Byron conceives of the encounter of consciousness and nature. Even if, as Geoffrey Hartman has persuasively argued, Wordsworth's poetry asserts the preeminence of imagination over nature, the...

Ask your question...

Christine Stohn  
log out

Home  
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# of answers  
20  
Prompt  
User question:  
{Inject user question here}  
Attached Aspects List:  
Temperature  
0.4  
Max # tokens  
450  
SAVE & UPDATE LAST

## Some experiences

- **Nothing is straight forward - very detailed testing is required**

Answering questions about **usefulness, accuracy and bias** such as

  - Does the summary make sense?
  - Are the facts correct
  - Is the narrative impartial, showing no prejudice for or against something?

---
- **One setting does not necessarily fit all** - e.g. to eliminate repetition, create a fluent narrative

---
- **Distinction between training data and data of the contextual input (our content) is not always possible**

---
- **Focus on specific use cases has a lot of value**

## Next steps

- Continue to **tune the settings**

---
- Extended **internal testing** - based on **use cases**

---
- **External (alpha) testing**
  - Librarians from the Ex Libris user group
  - Literature students
  - Literature faculty members

---
- **Beta testing**

---

## Community collaboration is key - only together can we answer questions such as

- **Where is the generative AI most useful** - building use cases

---

- **How close can the answers get** to what we envision, to be very convenient but also useful AND academically sound

---

- **How will the answers treat different material types and how much does that matter, e.g.**
  - Primary vs. Secondary resources (Humanities)
  - Education vs. Research material
  - Researcher vs. Reviewer
  - News vs. Scholarly publications

---

- **How do we best convey to users how to use the answer**



# Some of the opportunities and challenges with generative AI

## Opportunities

- Gaining new insights **from data at scale** ... and fast
- **Access to information** like never before
- Looking beyond the highly ranked
- **Including**
  - Question/answers
  - Conversations
  - Summarization
  - Virtual assistants
  - Recommendations

## Challenges

- **Costs!** LLMs are very expensive
- **Comprehensiveness**
- **How good is good enough** - output of LLMs has to be treated with caution
- **Information Literacy** becomes a whole new meaning

## Some concluding notes

- Generative AI has great promises, if applied responsibly and on trusted content
- Adoption needs to be with expertise and care - as a community we can work together to make it happen
- There are hurdles, such as rights, costs, and getting generative AI ready for adoption in academia
- We can all be part of it!



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