

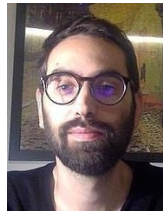
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Engineering and
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Research Council

Opening Up Minds

(2021-2023)



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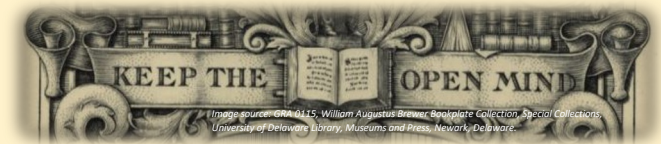


Industry partner

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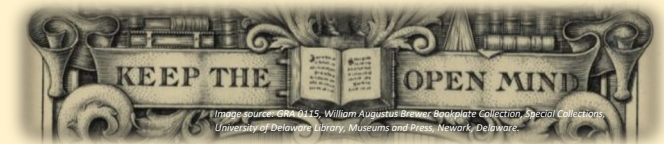
(...) propositions should be tested and people should be expected to make arguments. This is crucial about debating by the way, about democracy today, because unless you can restore some sense that politics is about reasoned debate between people who can agree to disagree, vote in different ways, but not hate each other, we got a real challenge with democracy.

Tony Blair, BBC Radio 4, Today interview, 19 September 2019



What can we do? What should we aim for?

Enable **engagement with** and **understanding of** different perspectives and arguments around controversial topics.



But how?

Our starting point is the **BBC Radio 4** programme 'The Moral Maze'

Well, the problem we always have with debt, which I would use rather than credit, is that ultimately there is interest. And the interest has to be paid back as well as the debt.

witness



chair



panellists



Well, it's interesting that you should imply that saving is morally good and can lead you to not be dependent, because actually sometimes taking out credit can also help you not be dependent. Is that not true?

Dialogue source:
Moral Maze MM2012
data set: *The morality
of money and debt*

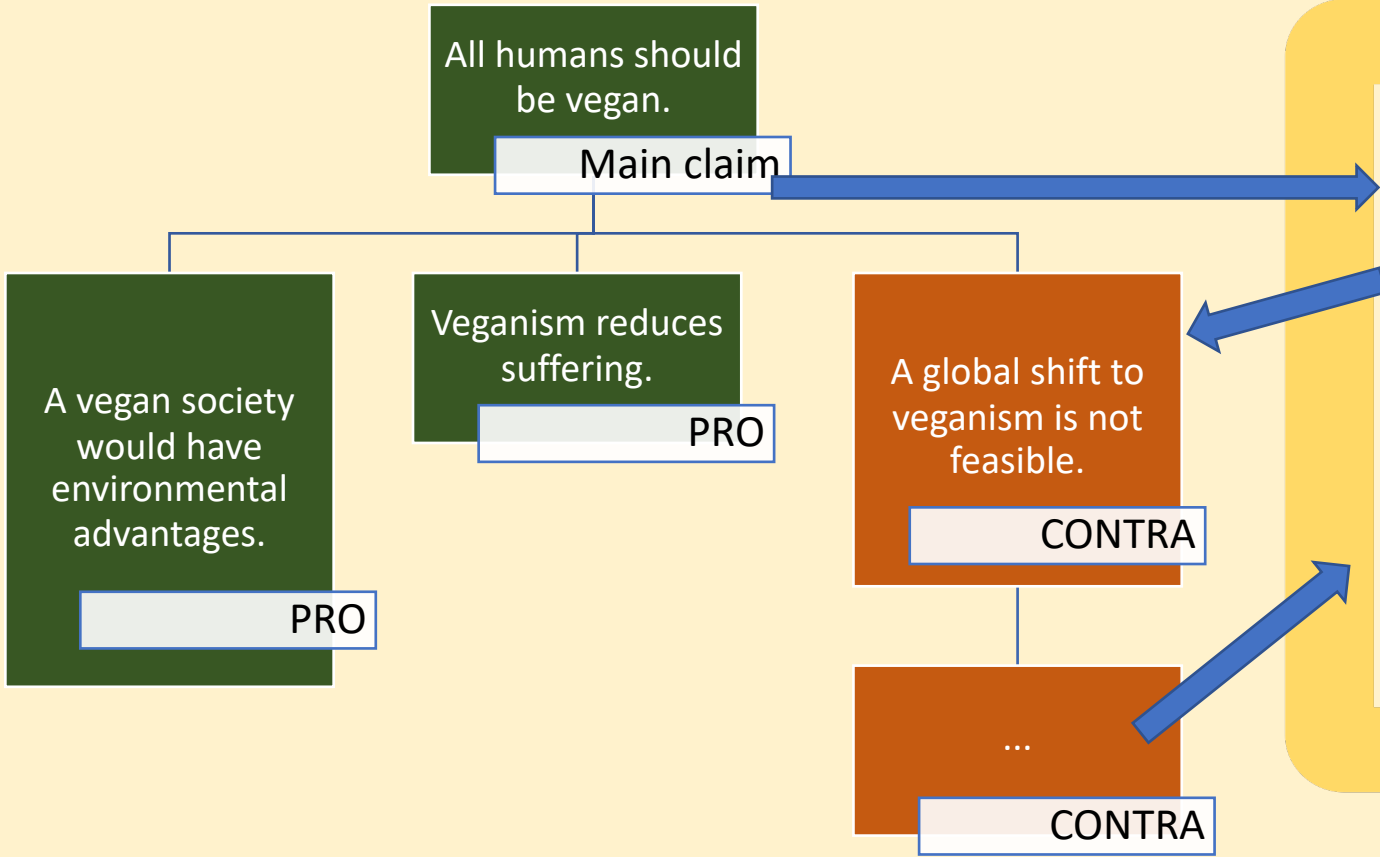


ArguBot: Today let's discuss whether all humans should be vegan.

User: I disagree – it's just not practical on a global level.

ArguBot: Veganism is necessarily flexible and, therefore, feasible for most people and circumstances. The Vegan Society's definition of veganism is less rigid than people often assume, requiring only that Vegans remove animal products as far as ...



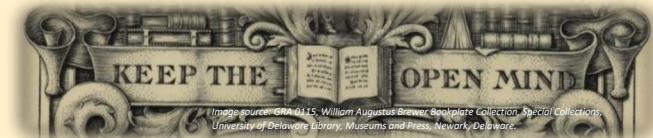


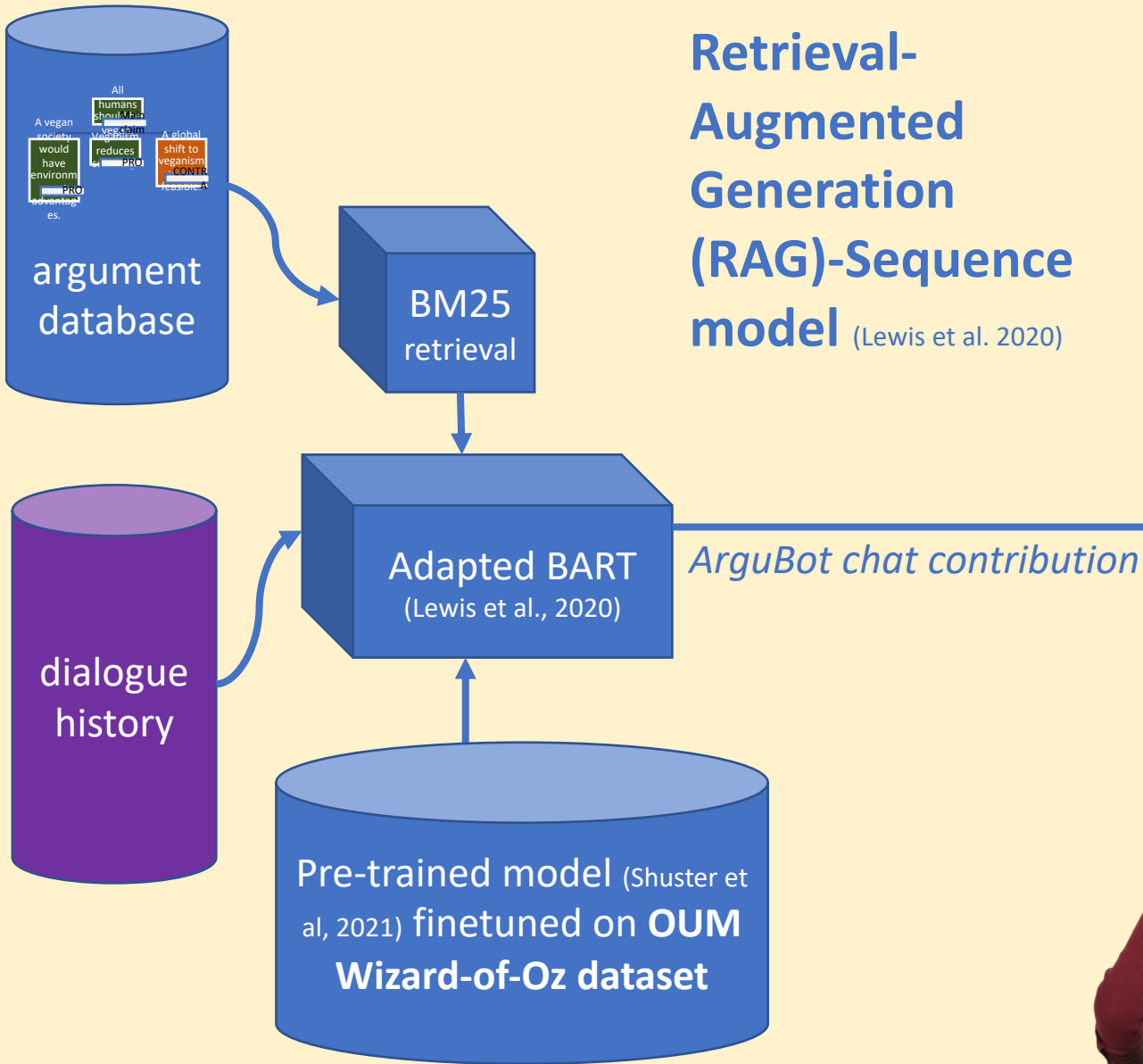
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Argument map source: kialo.com





Retrieval-Augmented Generation (RAG)-Sequence model (Lewis et al. 2020)

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Evaluation – Metrics

- *Open-mindedness*

- the **Ideological Turing test**

- proxy questions (Stanley et al. 2020): *do you believe your ideological opponent has good reasons for their position?*

Brand and Stafford,
preprint to appear

- *Chat experience indicating the **potential for engagement***

- engaging
- clarity
- consistency
- not confusing
- not frustrating
- ...



Evaluation – Results for the Argubot

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Farag et al. (2022)
Findings at EMNLP
to appear



Further work

- Use of **large scale (30K+) automatically generated dialogue data** for training, based on dialogue patterns extracted from the ArgTech's AIFdb BBC Radio 4 Moral Maze corpus
- Use of **Moral Values annotations** (care, fairness, loyalty, ...) for training
- Final experiment comparing **ArguBot against control** (reading article)



Thank you for your attention!

Web: http://mcs.open.ac.uk/pp2464/Opening_Up_Minds/

Twitter: @OpeningUpMinds

Come and see the demo and poster!



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