

Vegan Chatbot
A Description of a Proposed Software Application
By David Savage david@savageheart.com
<http://savageheart.com/vegan/vegan.html>

This document was originally written on 8/26/2016. At the start, I proposed to name the application "Vegan Answers App" (VAA, pronounced like sheep "baa." The original idea was a simple one question to the app, one response from the app, like Siri or Cortana, etc. (I don't have any experience with those.)

The idea later developed to have the app have the capability to carry on an ongoing conversation and to attempt to persuade the person using it to go vegan, rather than just providing information about why and how to go vegan. This document was Last updated 12/28/2017.

3/9/2016

The Meetup.com group "Vegans of Fairfax" [now discontinued] is having dinner at the Sunflower restaurant on 3/22. The theme is "Tongue-Tied Untangle: Or how to respond to "Plants, though."

I posted the following comment on the group's web page:

I googled "vegan answers to common questions and objections." Below are some links. Now if I could just memorize all the answers and be able to spit them out when I am asked the questions I would get an A+ in Animal Advocacy class.

<https://vegyouth.com/choosing-veg/common-objections/>

<http://bitesizevegan.com/free-ebook/>

<http://www.veganfuturenow.com/answering-the-objections-to-veganism/#but-lions-eat-meat>

<http://freefromharm.org/eating-animals-addressing-our-most-common-justifications/>

http://www.upc-online.org/ethics_questions.html

<http://caroljadams.blogspot.com/2011/09/living-among-meat-eaters.html>

http://www.veganaustralia.org.au/but_you_kill_ants

This all led to the idea: make a Vegan Siri/Cortana/Google voice search app that provides answers when you ask the questions.

I posted this comment on several Facebook pages:

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I have an idea for a vegan-related app that does not yet exist as far as I know, and would like to collaborate with a vegan app programmer (I only have Android devices, but if they can code for both Android and iOS, that would be better). If anyone knows such a person, please ask them to message me, or better email me if you have my email address. Thanks.

Matthew Martin replied almost immediately on FB Northern Virginia Vegans at <https://www.facebook.com/groups/1503656749886418/permalink/1675205796064845/>

Do you have a git hub repo or link to a page describing the project? I tracked down all the veg*n software developers world wide on twitter on my twitter account- <https://twitter.com/vegdevops> I can tweet about this there to give it some more attention.

I replied

Hi Matthew Martin! I don't have a git hub account or a page describing the project; I just thought of the idea five minutes ago. I see you live in Takoma Park. I live in Vienna, VA. Although a collaborator doesn't need to be local to me, it would be nice. Can you develop an Android and/or iOS app? I'm a programmer, but don't have experience with Android, iOS, or Java.

I have searched and as far as I can find, an app like the one I have in mind doesn't yet exist. Although it would be great if anyone created this app, I would like our app to be the first. If the details of the idea are published, it's likely that someone else will create it first. If you can't or don't want to develop it, do you have any suggestions for how to find someone and get the app done first?

Thanks.

Matthew replied:

Yeah, I'm not too familiar with small scale closed source development-- collaboration would at least involve NDAs, contracts, commitments, and a larger scale commitment to start collaborating. Podcasts I've listened to usually describe someone using their weekends and evenings to until they can switch to part time @ their day job-- in anycase, that's like working two jobs. As far as the open source model goes, that takes advantage of the fact that if many people pool their spare time to do something they were doing for their own enjoyment anyhow. It's a different social contract & more difficult to monetize. Opensource is still helpful if the goal is to increase the odds that the app exists at all-- typical apps don't make it past the idea stage.

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Michael J Debrown in Tucson

(<https://www.facebook.com/myessence.hasnolabel/about?section=education&pnref=about>) replied:

Why do I have a career or should I say budding career in cyber security computers and especially an Android and iPhone apps as well as the Linux operating systems my friend and I are collaborating and meeting up as we speak to go over ideas on how we can collaborate to make a lucrative business deals and apps that will improve people's lives this sounds very opportunistic and if you want and are interested please contact me via Facebook but preferably over the phone with my number is 630-999-6345 thank you

He doesn't have any vegan posts on his FB page and only a couple of vegan friends that I recognize. I don't like his self-portrayal—perhaps a generational thing.

Sian Graham (Hansen) suggested I post in <https://www.facebook.com/groups/veganprofessionalnetwork/>

Should I just go open source and give the idea away?

I searched for speech to text app for Android and got:

<http://bestandroidapps.com/best-speech-to-text-apps-for-android/>

<http://joyofandroid.com/best-talk-to-text-apps-for-android/>

<https://play.google.com/store/apps/details?id=com.nuance.balerion&hl=en>

https://play.google.com/store/apps/details?id=appinventor.ai_xenom_apps.SpeechToText&hl=en

Maybe one of these apps could be used. Some of them do text to speech as well as speech to text. Both would be needed for my idea. The components of my idea are:

Speech to text
Database of questions and answers
Database search capability
Speech to text

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After the spoken question has been converted to text, how to get it to the database search function? A web service? Email? Direct entry on a web page?

There are lists of questions and answers that I found above. Can I use those verbatim? Should I ask permission? Would there be copyright/royalty issues/costs?

3/13/2016

Vegan Advocacy App (come up with an acronym): After struggling for a few days I decided that my desire for everyone on Earth to be vegan is more important than my desire to get credit for the app in some way. I would still like to be listed in the credits as the originator of the idea, but if it doesn't happen, it doesn't happen.

I intend to write a full description of the app and post it on Facebook and send it to the people who replied to my initial post.

History of the origination of the idea
Mission of the app
Elements of app
Speech to text
Text to speech
Updatable database

Context-limited search engine (can the mission of the app be accomplished by using Google search in some way, e.g., vegan: [question])?

The answer should include the date and source of the answer
How to handle multiple answers to a question?

Provide options for users to select short, medium, and long answers and to select specific sources.

Provide options for users to define short, medium, and long, e.g., short = <15 seconds or short = <30 seconds.

Provide an option for speed control like YouTube has to slow down or speed up the audio answers.

Provide an option for users to select different voices for the text to speech engine.

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Include a translation engine and provide an option for users to select different languages for the text to speech engine.

Provide video of different people speaking the answers. Record original video or use clips from existing videos on the web (permission/copyright?).

Provide option for end users to update the database. I am aware that this could lead to parodies of the questions and answers and carnists and anti-vegans could provide their own answers to counter the mission of the app.

How the app could be used: I envision someone asking me a question about veganism. I hold up my smart phone and ask them to repeat the question, or I ask it myself. The phone speaks an appropriate answer.

After struggling for a few days I decided that my desire for everyone on Earth to be vegan is more important than my desire to make money from the app or get recognition for it in some way. I would still like to be listed in the credits as the originator of the idea, but if it doesn't happen, it doesn't happen. So I am giving away the idea and hope that someone will develop it into an app.

Before someone goes and develops an app, can the mission and features of the app be accomplished by using Google advanced search or Google API?

Basic components of the app:

Speech to text

Database of questions and answers

Database search capability

Speech to text

Thoughts about the components and possible features of the app:

Make OS-specific apps, i.e., Android, iOS, Windows phone, or make it browser-based or both?

I searched for speech to text app for Android and got:

<http://bestandroidapps.com/best-speech-to-text-apps-for-android/>

<http://joyofandroid.com/best-talk-to-text-apps-for-android/>

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<https://play.google.com/store/apps/details?id=com.nuance.balerion&hl=en>

https://play.google.com/store/apps/details?id=appinventor.ai_xenom_apps.SpeechToText&hl=en

Maybe one of these apps could be used. Some of them do text to speech as well as speech to text. Both would be needed.

After the spoken question has been converted to text, how to get it to the database search function? A web service? Email? Direct entry on a web page?

There are lists of questions and answers that I found above. Can those be used verbatim? Should the app developer ask permission? Would there be copyright/royalty issues/costs?

The app would use a context-limited search engine

Include the date and source of the answer in the answer

How to handle multiple answers to a question?

Provide options for users to select short, medium, and long answers and to select specific sources.

Provide options for users to define short, medium, and long, e.g., short = <15 seconds or short = <30 seconds.

Provide an option for speed control like YouTube has to slow down or speed up the audio answers.

Provide an option for video of different people speaking the answers. Record original video or use clips from existing videos on the web (permission/copyright?).

Provide option for end users to update the database. I am aware that this could lead to parodies of the questions and answers, and carnists and anti-vegans could provide their own answers to counter the mission of the app. It may be that all publicity is good publicity for the mission of the app.

3/15/2016

Emailed the above description to Tony Ash at tony@hipcheckco.co

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Posted on Facebook in a reply to Matthew Martin at
<https://www.facebook.com/groups/1503656749886418/permalink/1675205796064845/>

Posted on Facebook at <https://www.facebook.com/groups/veganwebnerds/>

Sent email to Gwyn Whittaker at gwyn.whittaker@me.com and Brian Michaud at michaud.brian.s@gmail.com

3/16/2016

More thoughts:

One aspect of the holy grail of search engines and the Turing Test is for them to search unlimited domains of knowledge and to infer the domain without the user having to specify it. I want to specify a specific domain of knowledge a priori, before the questions are asked, before a search is initiated.

By entering appropriate data in the database, the app could be used for any specific knowledge domain.

Using augmented reality such as Google Glass, answers could be displayed as text in the user's vision and the user wearing the glasses could read the answers aloud.

I googled "vegan search engine" and found:

<https://vegi.style> and

The Great Vegan Search Engine Project, a Google custom search engine by Becky Striepe (rhymes with "sleepy"), "a crafts and food writer from Atlanta, Georgia with a passion for making our planet a healthier, happier, and more compassionate place to live."

https://cse.google.com/cse/home?cx=007857372892095548138:j_cudozhaew

<http://www.glueandglitter.com/great-vegan-search-engine-project/>

<http://eatdrinkbetter.com/2014/05/25/eat-drink-better-launches-great-vegan-search-engine-custom-google-search-tool-vegans/>

<http://eatdrinkbetter.com/author/beckyanne/>

<http://www.mnn.com/green-tech/computers/blogs/a-search-engine-designed-to-make-a-vegans-life-easier>

<https://www.facebook.com/ShopGlueAndGlitter>

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An example of a video that has objections to veganism displayed as text and uses video clips of other people answering them is “Vegans Debunking Meat Eater Excuses #1” at <https://www.youtube.com/watch?v= Qi61q2fOi0> The app would make the questions searchable and show each video clip as an answer.

3/29/2016

Possibilities:

Use Google Custom Search

Use Google Docs Fusion Tables for a database

Can Google Custom Search directly search Google Docs Fusion Tables?

Use Google Custom Search to search a web page generated from a database (Google Docs Fusion Tables or SQL Server, etc. The web page could have only the questions and you would click a question to get the answer as text and then read aloud using text-to-speech, or:

Instead of using text-to-speech for the answers, record audio in .mp3 format and then use the HTML5 audio tag to play the .mp3 files.

4/5/2016

Google Custom Search only searches web pages. It doesn't search a database directly. So generate a web page from a database that looks like a fusion table or spreadsheet. Or, since Google Docs fusion tables and spreadsheets are accessed on web pages, maybe they can be searched directly. A custom search only allow you to specify what web pages or sites to search, not what search terms are valid (as far as I know at this time).

https://en.wikipedia.org/wiki/Google_Custom_Search

<https://support.google.com/customsearch/answer/4513751?hl=en>

https://developers.google.com/custom-search/docs/tutorial/creatingcse#defining_a_custom_search_engine_in_control_panel

<https://developers.google.com/custom-search/>

<https://www.youtube.com/watch?v=Oy04Esi0LPo>

Maybe create a database—which could be implemented in Google Docs Fusion Tables or a Google Docs spreadsheet—that lists keywords of interest to people who have questions about or objections to veganism and provides links to web

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pages that answer the questions. Examples of keywords and keyword categories:

Category: Nutrition

Keywords: protein, iron, B-12, calcium, health, vitamins,

Category: Ethics

Keywords: God, Jesus, Bible, Old Testament, made of meat,

Another page of answers: <http://inourishgently.com/witty-vegan-answers/>

Another page of answers: <http://www.mfablog.org/the-top-12-excuses-people-give-for-not-going-vegan-and-our-responses-to-them>

This may or may not be relevant: <http://www.cnet.com/news/google-offers-parsey-mcparseface-and-syntaxnet-ai-software-for-free/>

6/22/2016

At the HSUS conference Taking Action for Animals on 6/20 and 6/21 at the Hyatt in Crystal City I posted on the bulletin board a notice saying developer needed for vegan answers app. I got an email reply:

David, I live and work in Springfield. Are you free to chat on the phone this week?
Thanks!

-AB

Aashish Bhimani
Director of Business Development
o: 703-569-8763
c: 703-231-0291

I spoke with him by phone today. He said he develops partnerships for vegan projects and told me about some of his projects. He said he's interested in the app and will email the Humane League about it, and suggested that he could have people he knows write grants to try to get funding for developing it.

He said he will get back to me in a couple of days after he hears back from his contact at the Humane League.

After the conversation I had the following thoughts that I emailed to him:

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Hi Aashish,

After talking with you about the app, I realized that my vision for it was too narrow. I was thinking that you would ask it one question and it would give one answer and that would be the end of the transaction.

Now I envision the app as a vegan chat bot with AI and an expert system that can carry on an ongoing conversation about all the topics, questions, and objections related to veganism. Because whatever answer you give to a non-vegan to their first question or objection, they are sure to come back with something else that needs to be answered, and something else after that.

Maybe we could get some of the prominent articulate and eloquent activist speakers in veganism and animal rights/protection give their answers to the more than 100 questions and objections that non-vegans have about veganism. Maybe the AI could use neural networks to model their thinking and learn from their answers and be able to create its own answers in real time.

This vision for the app would require far more effort than what I had in mind up to this point, but the end result would be far more useful.

David

8/23/2016

Make a vegan chatbot app that talks about veganism.

At <http://www.jabberwacky.com> I asked "why are you vegan?" The chatbot replied "I am vegan because I don't want to cause suffering."

8/26/2016

More thoughts about the app:

I saw this article yesterday:

<https://www.ibm.com/blogs/watson/2016/07/build-chat-bot/>
"Build a chatbot in ten minutes with [IBM's] Watson"

Some more thoughts about the vegan app:

It's somewhat like the Expert Systems that I played with on a Commodore 64 in 1985 in the sense that it would be an expert in a particular domain of

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knowledge. (As much as there can be an expert about veganism and animal rights, considering all the differing views and positions that people have.)

However, it would be different in that I would like it to be able to persuade people to become vegan, not just be an information resource. Certainly it would provide factual information, but I would like it to have the capability to do more than that.

One of the options could be "what kind of personality do you want it to use?" For example, modeled on the personalities of Gary Yourofsky, or Melanie Joy, or Peter Singer, Bruce Friedrich, Gene Bauer, Gary Francione, Emily Moran Barwick, James Aspey, Earthling Ed, etc. The user could select from a list of names or select from a list of personality characteristics, and the app would select a personality based on the user's selections.

The ideas for the app have more general application than veganism. There is pretty much an unlimited number of knowledge and behavior change domains that an app could target. The general app would be like a template into which developers could plug in any sets of knowledge, information, persuasion techniques, and people to model personalities on. Actually, I think this is something that Alphabet (Google) should be working on with their AI team.

Summary (last updated 9/1/2017)

Context-specific chatbot that replies to questions and statements about veganism

The application would be like an expert system. However, it would be different in that it would attempt to persuade people to become vegan, not be just an information resource.

Three examples of videos that have objections to veganism displayed as text and uses video clips of people answering the objections are:

- Vegans Debunking Meat Eater Excuses #1
https://www.youtube.com/watch?v=_Qi61q2fOi0
- Vegans – The Mythbusters – Part 1
<https://www.youtube.com/watch?v=DKBOysutZ00>
- Vegans Respond to Non Vegan Excuses!
https://www.youtube.com/watch?v=z5Vtx_V8O4U

The chatbot would make the questions searchable and show each video clip as an answer.

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Input: Voice or text
Storage: Database of questions and answers in text, audio, and video + audio formats
Processing: Speech to text, database search
Output: Text, audio, video with audio

Features

- Output includes the date and source of the answer
- Option for multiple answers to a question
- Option to select short, medium, and long answers
- Option to define short, medium, and long, e.g., short = <15 secs or short = <30 secs
- Option to select specific data sources
- Option for speed control for audio and video + audio answers
- Option to select different categories of output, e.g., ethics, nutrition, environment, compassion
- Option to select different types of voices for output
- Option to select different specific people for output
- Option to select different personality types for output
- Option to select different languages for output
- Enter original text answers
- Use existing text answers on the web
- Record original audio and video + audio answers
- Use existing audio and video + audio answers on the web
- Use augmented reality to display answers as text in the user's vision for the user wearing the glasses to read the answers aloud