Introduction

On June 16, 2023, 12 animal advocates from all around the world virtually gathered together (thanks to the power of lettucemeet) to discuss big ideas for leveraging the power of AI to accelerate progress for animals.

Purpose of Sharing these Notes:

We want these ideas to be spread early and widely across the animal protection movement to stimulate ideas and discussion. Please feel free to leave comments on this document if you have questions/feedback on an idea or just go ahead and initiate discussions/collaborations on the IAA Slack under #ai-projects (for collaboration) or #ai-productivity (for personal/professional productivity).

I've also added in some of my own resources post-discussion so some info will be new for participants as well!

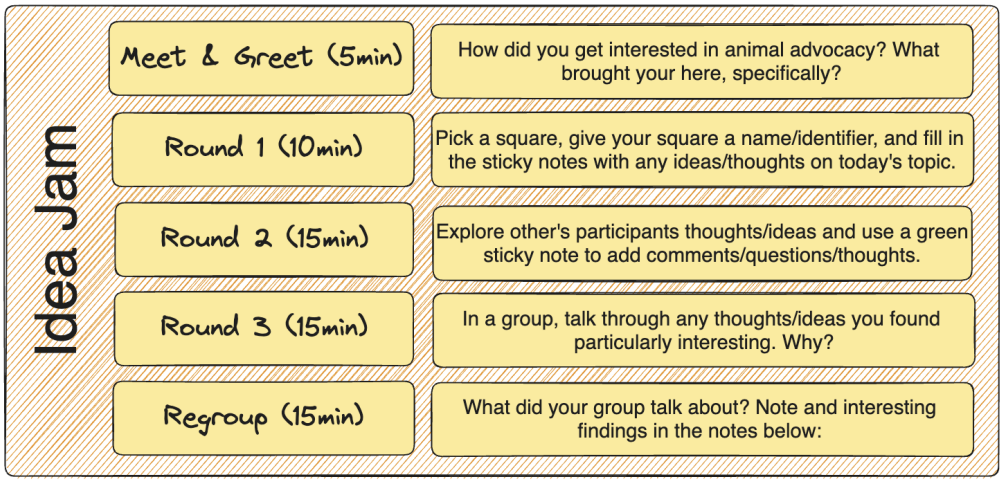
Let's be cyborgs for animals!

Purpose of Idea Jam:

This will be a fairly casual online meetup where you'll have the opportunity to:

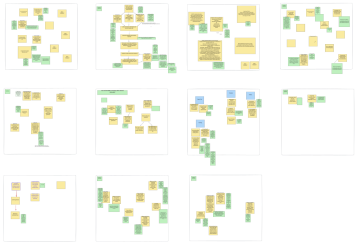
- 🤝 Meet some folks who are also interested in ways of leveraging AI to make progress on animal advocacy-related goals
- 🧠 Combine electrochemical processing units (brains) to generate ideas for applying AI in the animal advocacy movement

Session Schedule



Notes from Idea Jam:

Original Whiteboard



Seeding the Concept of AI in Animal Advocacy:

- Considering the role of AI in animal advocacy earlier, rather than later, can be likened to the concept of compounding interest. Just as investing early yields greater returns over time, early engagement with AI in animal advocacy can lead to cumulative benefits and impact.
- We could create a consolidated website with resources for AI/Animal Advocacy
    - Domains available:
        - ai-animal.org
        - aiforanimals.org
        - ai4animals.org
        - Eaa.ai

- Group AI learning
    - Could try a theme each week where IAA #ai channels collectively try to identify best practices. We could pick a challenge like “find the best prompt to summarize this complicated research article” or do a reading/watching group for articles/videos that have been identified as high value
- Continue discussions on the #ai-projects channel to facilitate ongoing collaboration.

AI Tools for Animal Advocates

- Create an LLM trained on animal advocacy specific datasets as a free/open chatbot for advocates to use (for writing blogs, op-eds, social media posts, etc)
    - Veg3 is already working on this and is searching for developers and investors. (DM Sam Tucker if interested in helping - he generally likes to use Slack)
- Develop a plugin for ChatGPT?

AI in Agriculture:

- **AI in the animal agriculture industry - Rise of Precision Livestock Farming (PLF)**
    - Is using AI to make animal farming more efficient net good or bad for animals?
        - Either way, it would be better for animal advocates to be part of the conversation and obtain leverage in the decision making.
    - **Groups Currently Doing PLF:**
        - Merck Global company based in US with a department for Animal Health Intelligence that has multiple products that incorporate AI for monitoring systems in livestock farming, aquaculture, and pets.
        - Connecterra Dutch company with global reach and many corporate partnerships that developed a collar mounted device for dairy cows for monitoring animal health and methane emissions.
        - Vencomatic Group Global company based in The Netherlands with tech for autonomous broiler chicken housing and egg handling that has some AI integration
        - Cainthus US company using AI video monitoring system for managing dairy herds
        - Animals.ai Swedish startup developing AI video monitoring system for managing dairy cow herds
        - AI4Animals Dutch startup using AI monitoring system for slaughterhouses
        - Farmsee Israeli startup using AI to monitor growth of pigs
        - OneCup AI Canadian startup using AI to monitor for cow ranching herds
        - AI4Animals and Deloitte - Animal Welfare nonprofits helped create a AI surveillance system for monitoring issues in slaughterhouses in The Netherlands

- **Advocating for use of CCTV camera footage**
    - Training AI computer vision systems to process CCTV footage and flag instances of welfare law violations or instances of sickness/injury in animals (already being done by some groups mentioned above)
    - Why would farms be motivated to adopt this?
        - Could gamify it through a public animal well-being “scoreboard” for farms - people can compare different farms' performance in terms of incidence of disease and frequency positive/negative behavioral markers. Farms with good outcomes have bragging rights and perhaps there could be a score for each farm that they can put on their packaging for each month/year like a certification, but numerical and verifiable.

- **AI could be used to accelerate discovery of cell-based proteins and alternatives to animal testing.**
    - Are groups already doing this? We should reach out to people working in alternative protein and offer assistance in adopting this technology if it could help advance their progress. Jonathan works in AI drug discovery and has offered his expertise to help companies doing this work.

AI for Increasing Public Support for Helping Animals

- **Understanding animal thought using AI**
    - Examples of ongoing projects:
        - Earth Species Project company using AI to decode animal language
        - The SOUNDWEL project EU funded project for correlating pig vocalizations on farms with their emotional states
        - Project CETI - might be the most well funded of these projects. Scientists have come quite close to decoding the language of sperm whales.
    - Potential for powerful storytelling and path to empathy for farmed/wild animals.
        - Could partner with a farmer who may allow us to put a mic on a farm animal through their whole life up until imminent slaughter and get them rescued and put into a sanctuary and make a whole documentary from the perspective and words from that animal.
    - Main bottleneck for this technology is data acquisition. They need many thousands of hours of vocalizations to be able to decipher the language of animals. Different flocks/herds might also have different “dialects” which further complicates this.
        - There is a need for innovative approaches, such as crowdsourcing, to increase the datasets available for training these ai anima Interpreters
    - Could also investigate the use of brain scans and other technologies to interpret animal thoughts and behavior.
    - Could create avatars that could represent animal communication and facilitate better understanding between humans and animals.

- **Using AI to automate animal advocacy on social media.**
    - AI systems could analyze publicly available user data and use bots with tailored languages and approaches to better engage and persuade individuals to adopt a vegan lifestyle or take other actions to help animals.
        - AutoGPT + Mechanical Turk can be used to create the bots
        - Potential Drawbacks - people don't like bots or vegan activism and it's unclear what metrics to use to measure success
        - Potential Mitigating Strategies
            - Create some sort of watermark so people know when they are talking to a bot vs a human
                - Some people may prefer to talk to bots when given the choice because they feel free to ask questions without judgment
                - People appreciate transparency
            - Form a coalition of animal organizations who pledge to reveal whether texts from the organizations are coming from AI bots or humans
            - Rather than pushing strictly for veganism, it was suggested to tailor the final ask based on what the individual is most likely to accept and optimize the impact for animals.
                - Examples of tailored asks include advocating for actions like eliminating fish from one's diet, adopting animals from shelters instead of buying, donating to effective animal charities, or participating in protests.
            - Have a testing phase with recruited subjects to give feedback before launching.
                - Could use Positly
        - How do we measure success? What is the feedback loop?
            - Self-reports are notoriously unreliable due to self selection and desirability bias
            - Could integrate google analytics to segment and see what the user searches or purchases after engaging with the chatbots
        - Design the open large language model to cater to the specific needs of animal advocates. Include them in the design process by surveying them for their wishlists/current bottlenecks.
            - Example intake form from the 1:1 ai productivity coaching form, which could be reformatted to gather target audience data for Sam to consider when developing the model.

- **Using AI to augment existing animal advocacy efforts**
    - VH and SDI webinar on leveraging ChatGPT in the animal protection movement.
        - Here are the notes.

- AI Productivity Workshop at AVA
    - Opportunity to seed the idea of using AI to an international network of professionals in the animal advocacy movement. Constance gets to talk for 3 minutes at the welcoming reception and do a 1h workshop on July 28 in LA.
        - Anyone want to help facilitate? (Have room for 4 more. DM Constance if interested)
- Could create a mentorship program for those skilled in AI and those that want to learn

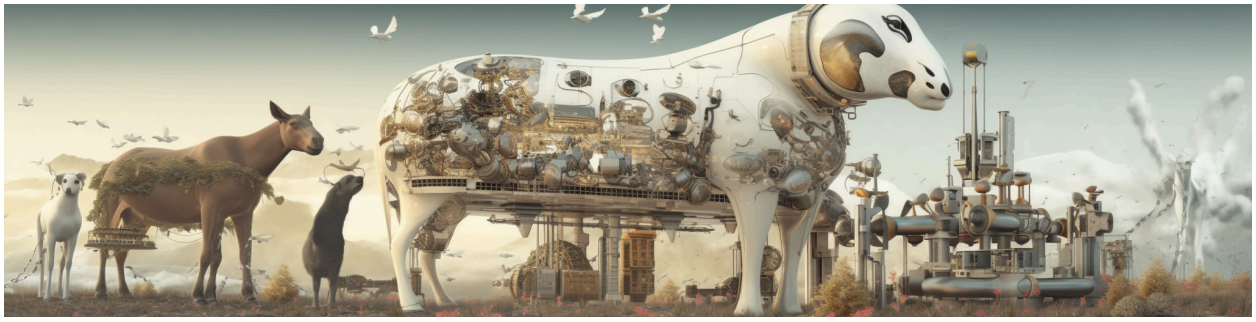
Big Questions:

- Offense v.s. Defense
    - Offense focuses on proactive measures to promote animal welfare, such as persuading individuals to take actions that help animals.
    - Defense involves employing AI to mitigate and address ongoing animal suffering, possibly through monitoring systems, regulation, or alternative solutions to animal testing.
- How collaborative should we be with the animal agricultural industry?
- Immediate Actions vs. Strategic Considerations:
    - What actions can be taken currently to utilize AI for animal welfare?
    - How can we anticipate the potential benefits and challenges that may arise as AI capabilities continue to improve?
    - Balancing short-term initiatives with a strategic perspective on how AI advancements will shape the landscape in the future.

Action Items:

- Share detailed meeting notes with participants and the slack channel. (done!)
- Decide on how we can streamline the process of generating and discussing ideas for the next meeting.
    - We can some technical issues with the Excalidraw, didn't have breakout rooms, and went way over time (almost 2 hours)
- Offer participants a free account on Veg3 to experiment with AI tools during the AI productivity workshop at the AVA summit. Direct interested investors/developers to Sam Tucker.

- Seek connections and collaborations with alternative protein startups, including Oliver's company working on cell-based dairy.
    - Please comment if you on the slack thread if you know people in these companies who would be interested in getting consulting from Jonathan who works in drug discovery using AI.
- Continue discussions and exploration of AI's potential role in helping animals!
    - We decided to make it a public discussion on the slack channels to encourage accelerated consideration and collaboration for these ideas.
    - Watch out for the next meeting on the IAA slack channel #ai-projects. Can also post to the FAST network again.



Thank you to everyone who participated!

Sincerely,
Constance Li
Quinn McHugh