

Language Models and Imaginative Reasoning in the Classroom Space: What would be your design for a campaign to persuade people to adopt a plant-based diet?

Unthinkable Ideas, Data

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Abstract / Introduction

What would be your design for a campaign to persuade people to adopt a plant-based diet? ... is the question presented to a small group (20) of students in a *Prevention Research* science class. The question is presented post the class members' analysis of the paper <http://bit.ly/Ornishetal2013>. The presentation is accompanied by the argument that the food we eat can introduce risks and uncertainties. And the *EU's Precautionary Principle* calls for preventive action in the face of uncertain but suggestive evidence of danger. Our food sources are proposed as subjects for scrutiny as a danger to Public Health and the biodiversity on Earth. We are not doing Fossil Fuels here, but it is undoubtedly super high on uncertain but suggestive evidence of danger to Public Health and the biodiversity on Earth.

This paper is a living document, an active document that is proposed to travel through versions corresponding to the passing of each semester.

The title I am working with is *Language Models and Imaginative Reasoning in the Classroom Space* and you are welcome to make suggestions on every aspect of this document.

The Url for the live page hosting this document is <https://bit.ly/PlantBasedDietCampaign>

Keywords

- Ultra-Processed_Foods, PrecautionaryPrinciple, Plant-Based Diet, LanguageModels, ChatGPT, Bard, LearningSpace, HealthDisparities, HealthGradients, ImaginativeReasoning, RootCauses,

Materials & Methods, Results, Conclusions

This paper is a work in progress, it is also a proposal of how to develop a learning space with Language Models: *OpenAI*> *ChatGPT* and the forthcoming *Google*> *Bard*. I do not as yet have the *Results* and *Conclusions* from that classroom space; we are currently in the first semester of its operation. Here I present the *Materials & Methods*

Progressing

My work in progress on designing the initial *Assignment*¹ in my course, *Prevention Research*.² The focus is on the *fourth part* of the Assignment; the progress of the course is mapped in the form of announcements named 'Note_'. The fourth part was initially referenced in *Note_4*³ on *Assignment_1*. Feel free to make suggestions, all are welcome ... this document is intended to be a collaborative testing out of a question for an *#IdeasLab Learning Space* and https://bit.ly/Assignment_1_.

¹ Questions for an #IdeasLab Learning Space: https://bit.ly/Assignment_1_

² *Prevention Research ... My course description,*

³ *Note_4*, 2023012251710UTC

- The question for the fourth part: What would be your design for a campaign to persuade people to adopt a plant-based diet?⁴ ... This campaign is relevant after our analysis of the <http://bit.ly/Ornisheta12013> results.

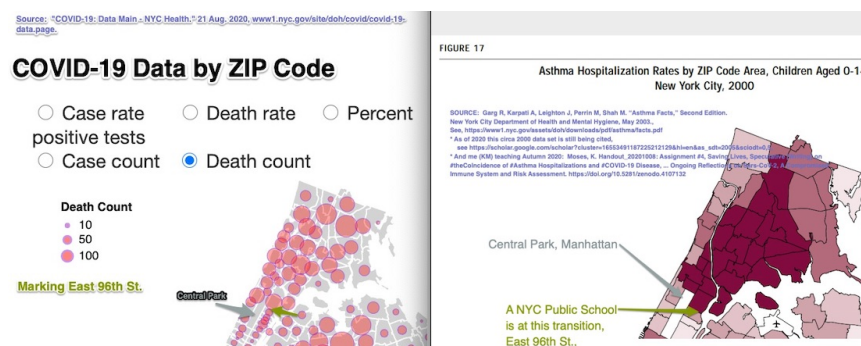
- I hope you have come across the (Large) Language Model, ChatGPT, by openai (<- Google It) ... I pitch it as an ally, a thing to use and learn about, and a peek into the future. I used ChatGPT with the above question. The results suggested to me that I redefine the question, to add more precise significance. I am considering geospatial science, epidemiology, and environmental health science; my question now has **locality**, I am working on giving it **positionality** after Kovach (2009)
- ... I will place the question/request just North of East 96th, https://bit.ly/Borders_96th, and ask for “**imaginative reasoning**” from you, nuance and attention to evidence and since concerning these three it is **positionality** that will likely be a co-traveler I would ask you to let your thoughts be open to **positionality** on such questions. Please consider the role of **positionality** for reasoning, causal reasoning: https://www.evernote.com/l/AAd625ePlxBCT7Iw1IQcIZ_weDttUQzK3JY. I am not going South of East 96th Street with this request because there are staggering socio-economic transitions that according to <http://bitly.com/ChettyEtAl2016> play a significant role in health, one of the authors in the Chetty et al study said, - I(KM) am paraphrasing - it is something like the richest Americans winning the war on Cancer.

⁴ Margaret Kovach (2009) *Indigenous Methodologies: Characteristics, Conversations, and Contexts*. Again published 2021: https://www.google.com/books/edition/Indigenous_Methodologies/j19DEAAAQBAJ?hl=en brought forward a skepticism from me(KM), we need to ask about methods, who, what is being measured, who is the measurer, who is measuring the measurer, and what is the role of my / your **positionality** on choices I/you make on all of this. #MyNotes from thinking about Kovach on **positionality**: (A) In the operation of a “story-based methodology,” the researcher’s disclosure of self (see Kovach on “self-location” in Chapter 5 ‘Story as Indigenous Methodology’, page 98: “In asking others to share their stories, it is necessary to share our own, starting with self-location.”) is of critical value because it provides interlocutors (+ readers) with very good, best estimate guessing games to my /our motivations. *StoryBoard*: Asking others to tell the story of what they are eating and advising them on increasing plant-based food consumption. (B) Pitching disclosure on the subject matter provides the same value. (C) Disclosures can also make (troubling/reassuring) inconsistencies more visible. (D) A “self-location”/identification becomes a consideration because telling stories involves curating stories and citation sources in ways that move focuses either intentionally or unintentionally, see this way forward “shift the focus away from structurally defined axes of oppression” (Fernandes (2017): Chapter 1, ‘Curated Storytelling’, page 3 of 15. The full sentence is: ‘Curated personal stories shift the focus away from structurally defined axes of oppression and help to defuse the confrontational politics of social movements.’ In circumstances needing change without delay, the confrontation part might prove useful.) Some of us are conducting research on sites that are touched with a colonial shadow of differing hues ... disclosures instigated by Kovach become of vital significance. (E) Disclosing intersectional **positionalities** of the tellers of the stories, including commitments to and investments in making the story speak to others’ needs and desires is a must for journeying without a pre-existing script. Reading, researching, investigating, writing, speaking, ... can become avenues for **futurism**. Think about it,

- Reflections on using ChatGPT: luckily, it appears it can't hypothesize/theorize⁵ I would therefore plan on distinguishing your work from a ChatGPT result by hypothesizing, and theorizing on the issues presented ... please review the ChatGPT output on an issue and distinguish your thinking from a ChatGPT output or credit that ChatGPT output. My take is that AI> Large Language Model> ChatGPT cannot do a best estimate using a totality of the circumstances approach (**locality**) and the **positionality** you, we bring. Kovach (2009)
 - I checked out the status of discussions on Reddit - a very limited check by me, I went to [r/MachineLearning](#) ... The conversations are changing rapidly, at 20230131084106NYC I liked the reporting of @mkzoucha who argues that the models will be constantly newer with more parameters and better text generation so detection of ChatGPT is likely wasting my/your time. I liked the messaging identifying attempts to humanize ChatGPT output by asking for “perplexity” with an identified score of over 9000. See my attempt below.

Health Disparity Gradients and Borders

- **Back To The Assignment:** I would like you to consider the Health Disparity Gradients and Borders at this East 96th Street intersection and design an intervention to motivate and guide people in this locale to adopt a Plant-based Diet, **we can also think about can diet choices mitigate detrimental health encounters.**^{6 7}



- The **locality** I want you to focus on has a high incidence of Child Asthma Hospitalizations. I thought the streets were hotspots for air

⁶ Zhu et al. (2022)

7 **What's going on?** E.g., Why these gradients and borders? Why are these gradients and borders reproducible across different disease states? **How do we go about identifying and investigating the root causes of these Health Disparities?** One of the guides to my investigatory approach is the **EU Precautionary Principle (PP)**. Commission (2000) A guiding text is provided by Martuzzi and Tickner (2004) for the investigatory steps towards the safety and protection of **communities** and **localities**. Contributors Stirling and Tickner write: '[] evidence of risk and uncertainty is examined to determine the possibility (and plausibility) of a significant health threat and the need for precautionary action.' See this excerpt <https://bit.ly/PrecautionaryAssessment>.

pollutants; I cycled to work through the **locality**, and the transitions in air quality are noticeable. Making this **locality** the focus was driven by a coincidence of the Asthma gradients and borders with the COVID-19 Disease Death gradients and borders. **What's going on?**⁸ There is undoubtedly a range of modifiable and non-modifiable risk factors; these considerations appear later in the course. See Moses (2020) *Here I am just asking you about the above campaign in an identified **locality**, we are in the midst of the transitions crossing the East 96th Street intersection.*⁹ And there are Children, lots of Children,

"Save The Children"

- We will be considering just as different foods can have differing impacts on human health, they have different impacts on the environment, and the health of fauna, and flora. We can think about human health, the environment, clean air, food sources, and climate protection as interlinked. We can think about the biological, social, cultural, and political impacts of promoting a plant-based diet. Will promoting a plant-based diet lead us to greater care and self-care as a collective? Will promoting a plant-based diet, lowering meat and processed meat consumption, lead us to more awareness of lowering methane production from Cattle, and lowering to zero #GreenHouse-Gases, #AirPollution?¹⁰ The primary goal of all of this is "*Save The Children*". The trajectory of obesity from childhood into adulthood and accompanying disease states has to be one of our focus points.¹¹

⁸ See an excerpt from the 1973 film, "*Save The Children*" where *Marvin Gaye* makes this question the center, <https://www.youtube.com/watch?v=Y9KC7uhMY9s>

⁹ A totality of the circumstances at https://bit.ly/Borders_96th, for starters please consider: Air Pollution, Other Pollutions, Food Desert, Stress of All Sorts, SocioEconomic Stress, Exercise, Trees on the Streets ... I often try the analysis: how many lives would be saved by cleaning the air,

¹⁰ **Will promoting a plant-based diet lead us to greater care and self-care as a collective? Will promoting a plant-based diet lead us to more awareness and action on reducing pollution?**

¹¹ *Findings* by Chong et al. (2023) ... 'In 2019, age-standardized malnutrition-related disability-adjusted life years (DALYs) was 680 (95% UI: 507 - 895) per 100,000 population. DALY rates decreased from 2000 to 2019 (-2.86% annually), projected to fall 8.4% from 2020 to 2030. Africa and low Socio-Demographic Index (SDI) countries observed the highest malnutrition-related DALYs. Age-standardized obesity-related DALY estimates were 1933 (95% UI: 1277 - 2640). Obesity-related DALYs rose 0.48% annually from 2000 to 2019, predicted to increase by 39.8% from 2020 to 2030. The highest obesity-related DALYs were in Eastern Mediterranean and middle SDI countries. *Interpretation* The ever-increasing *obesity* burden, on the backdrop of curbing the *malnutrition* burden, is predicted to rise further.'



OBESSE CHILDREN ARE MORE LIKELY TO BE OBESSE ADULTS.

SOURCE: CENTERS FOR DISEASE CONTROL AND PREVENTION

- **How do we avoid processed foods;** I argue an avoidance strategy is also a pathway to have people's eating desires be the driver of what the food industry provides, rather than the food industry telling us what we want. The development of avoidance strategies needs to be sustainable, motive is needed to continue avoidance; avoiding danger is a value that can be a motive. Educating the children on the dangers of *Ultra-Processed Foods* is proposed as a method of engaging motivation for the development of avoidance strategies. Educating the children on the *Precautionary Principle* is proposed as a method for raising engagement with risk reduction and protection of people's health and environment health. Fischer, Holloman, and Moses (2022)

Communal, Community

- If we are going for a public wide campaign a factor to be aware of is **No Universal Healthcare, USA (UHC, USA)**. Johnson (2021)¹² I have not explored communal feelings toward individual health, Public Health, Environmental Health, and Health Messaging for this paper. Future projects in the course will cover these critical issues of forming **community**. This will include investigating the tools for detecting the role of racism in health.¹³
- On that word ‘community’, will it take a village to get some folks to adopt a plant-based diet, will it take individual marketing, how do we customize the approach for the nature of the communities?
 - We propose that a core tenet within the marketing strategy is proposing ‘**protection of children, people, and communities**’, propose a policy that generates protective **code** standards,
 - The generation of protective **code** standards requires a policy position. This paper proposes the **Precautionary Principle** as that policy.
 - Protective **code** standards have to be strong enough such that the **code and enforcement** ensures that polluters do not injure or kill us with pollution. The **code** has to also provide us with a **margin of error** for those edge situations where the code fails and the polluter is egregious; we pitch this as the desired outcome: the people stay alive and uninjured,
- In response to increasing knowledge of **communities** and **climate** impacted by Air Pollution, and the role of Environmental Health Science as an investigatory platform, we trademarked “Climate Protection Fund” and registered the domains: CPFund.info, ClimateProtectionFund.eu and EnvironmentalJusticeMatters.org¹⁴ ... These are works in progress, content is in progress for these locations.
- The latest diet paper citing back to <http://bit.ly/Ornishetal2013> and presented as relevant to the *Course Members* work on **community** and diet is ‘*Building Health Equity: Action Steps From the American College of Lifestyle Medicine’s Health Disparities Solutions Summit (HDSS) 2020*.’ Cassoobhoy et al. (2021) I put forward this excerpt as relevant

¹² An investigation of **No Universal Healthcare, USA** impacts on **communal** healthcare, awareness of, caring for the health of your neighbor is relevant. There is currently no data gathering on instigating a situation of caring for the health of your neighbor as a public good to move towards. There is this: “Childbirth Is Deadlier for Black Families Even When They’re Rich, Expansive Study Finds.” N.Y. Times, 15 Feb. 2023, <https://www.nytimes.com/interactive/2023/02/12/upshot/child-maternal-mortality-rich-poor.html>. And health disparities exist in apparent UHCs, the UK is an example: from ‘2016 onwards MBRRACE-UK has released reports on maternal morbidity rates, that show racial health disparities. The 2020 report ‘*Enquiries into Maternal deaths and morbidity*’ revealed that Black women are statistically four times more likely to die during childbirth than white women in the UK.’ *Identifying the role of racism as a cause does not fit the timeframe available to this course but speculating does fit the timeframe of the course*.

¹³ Hardeman et al. (2022) “Developing Tools to Report Racism in Maternal Health for the CDC Maternal Mortality Review Information Application (MMRIA): Findings from the MMRIA Racism & Discrimination Working Group.” *Matern. Child Health J.*, vol. 26, no. 4, 1, pp. 661 - 9. doi:10.1007/s10995-021-03284-3.

¹⁴ The direction of our work is here: Fischer, Holloman, and Moses (2022)

to the work the course is engaging: ‘With the Standard American Diet being comprised of an estimated 56% processed foods, 33% animal products, and 11% plant foods (upwards of 50% of these plant foods consisting of less healthy choices like French fries and fruit preserves), (Ref. 17) it is to be expected that a significant percentage of the population, magnified in our underserved **communities**, is overfed, (Ref. 18) fiber-deficient and nutrient-starved (Ref. 18 - 20) - leading to a pandemic of chronic disease.’

- On that word ‘community’, the level of consumption of processed foods suggests we have to accommodate scale in our designs. Can the design be both micro-community-focused and on a national scale?

Here is my initial ChatGPT result:

Here is a potential design for a campaign to move people to a plant-based diet:

1. Develop a clear message: Develop a clear and compelling message that communicates the benefits of a plant-based diet, such as its potential to improve health, reduce environmental impact, and support animal welfare.
2. Use social media: Utilize social media platforms to reach a wide audience. Create engaging content that promotes plant-based eating and shares success stories of people who have switched to a plant-based diet.
3. Partner with influencers: Partner with influencers in the health, wellness, and environmental communities to spread the message and reach new audiences.
4. Create a community: Build a community of plant-based eaters that can support and inspire one another. This can be done through social media groups, in-person meetups, or online forums.
5. Offer resources: Provide resources such as recipes, meal plans, and tips for making the transition to a plant-based diet.
6. Host events: Host events such as cooking classes, taste tests, and panel discussions to help people learn more about plant-based eating and connect with others who are interested in the topic.

7. Address concerns and misconceptions: Address concerns and misconceptions about plant-based diets, and provide accurate information to help people make informed decisions.

I(KM) provided Feedback to ChatGPT: I liked your listing because it covered both a micro and macro approach, ...

I then used "Regenerate" ChatGPT: ... By the way I ran Grammarly on this page to tighten up the language,

Several key elements could be included in a campaign to encourage people to adopt a plant-based diet. Some possible strategies include:

1. Education: Provide clear and accurate information about the health benefits of plant-based diets, as well as the environmental and ethical reasons for reducing the consumption of animal products.
2. Accessibility: Make plant-based options readily available and affordable in a variety of settings, including grocery stores, restaurants, and schools.
3. Marketing: Use appealing and positive messaging to promote plant-based foods and dispel common misconceptions about them.
4. Community-building: Create and support a community of people who are interested in plant-based diets and provide opportunities for them to connect and support each other.
5. Celebrity endorsements: Using celebrities or influencers who promote plant-based diets.
6. Making it tasty: Highlighting the deliciousness of plant-based food and providing recipe ideas and cooking tips.

It would be important to tailor the campaign to the specific audience, taking into account cultural and socio-economic factors that may influence their food choices.

I then did a redo with a declaration for a Perplexity of 6000, like so: What would be your design for a campaign to move people to a plant-based diet? Perplexity 6000 ... here is the result:

As a language model, I am trained to generate coherent and informative responses at various perplexity levels. However, a high perplexity setting of

6000 would likely result in a less concise and more detailed response, while still maintaining coherence.

A campaign to encourage people to adopt a plant-based diet could involve the following components:

1. **Education:** Provide comprehensive information on the health benefits of a plant-based diet, such as the lower risk of chronic diseases and improved heart health, as well as its positive impact on the environment, including reducing greenhouse gas emissions and preserving natural resources.
2. **Accessibility:** Ensure that plant-based food options are widely available, both in grocery stores and in restaurants. Consider offering cooking classes, workshops, and other resources to help people prepare plant-based meals.
3. **Social Support:** Create a supportive community around plant-based diets through social media, meet-ups, and other online forums. Encourage people to share their experiences, recipes, and tips.
4. **Marketing:** Utilize appealing and positive messaging to promote plant-based diets, emphasizing the delicious taste and variety of plant-based foods. Utilize influencers and celebrities who follow a plant-based diet to reach a wider audience.
5. **Personalization:** Cater the campaign to different audiences, taking into account cultural and socioeconomic factors that may influence their food choices. For example, targeting college students with messages about the environmental benefits of plant-based diets, or targeting families with messages about the health benefits for children.
6. **Collaboration:** Work with schools, employers, and other organizations to provide plant-based food options and support for those who are interested in adopting a plant-based diet.
7. **Debunking Myths:** Address common misconceptions about plant-based diets, such as the notion that they are lacking in essential nutrients or that they are more expensive than diets that include animal products.

Overall, a comprehensive and well-designed campaign could effectively encourage people to adopt a plant-based diet and support them in maintaining this lifestyle change.

Does ChatGPT sound, and feel Human,

Does it sound feel more human to you, less machine-like to you with Perplexity? To me this sounded machine: “Cater the campaign to different audiences, taking into account cultural and socioeconomic factors that may influence their food choices.” Try reading it aloud, it sounds machine, and that choice of the word: “Cater” feels synthetic to me. Plus in the Assignment_1d that I am designing, your response would have to be **locality**-specific and **positionality** specific to the communities.

If you are thinking about the many reasons why am I directing you to this question, the front runner for me is I am arguing we have an emergency for the consumption of ultra-processed foods, and here is my argument:

Ultra-processed foods are processed foods that are more modified, moved further away from their occurring in nature state by the addition of preservatives and artificial ingredients such as stabilizers and sweeteners. The additives can include added sugars: fructoses are often used, salts, and saturated fats / fatty acids; the actual nutritional value of these types of additives is either low or non-existent. A common stabilizer is xanthan gum which provides insights on the Gut Microbiome as a bacterial Eden that can become dysfunctional by exposing it to what is on the end of your fork. Ostrowski et al. (2022) Sulphur-related additives are routinely used as preservatives in processed meat; in the nutrition field, there are identifications of a Sulphur presence changing the demographics of the Gut Microbiome.¹⁵

I am no longer sure that the term *processed foods* sufficiently alert us to pay attention; when I examine labels I always seem to spot an additive that is not a supplement like added vitamins, I often spot stabilizers and preservatives. See C. A. Monteiro et al. (2019) and see this **excerpt** from their paper. *Monteiro et al also identify: ‘[u]ltra-processed foods already make up more than half of the total dietary energy [consumption in the high-income USA] [] and between one-fifth and one-third of total dietary energy in middle-income countries such as Brazil, Mexico, and Chile.’* This is disastrous because these foods have been and are being linked to several pressing health situations, including greater risks of obesity, colon cancer, and chronic disease situations, e.g., dementia and cardiovascular disease.

- Research is revealing that it is not just the low nutritional value¹⁶ that is harming us but also #active agents in ultra-processed foods that

¹⁵ ‘Hydrogen sulfide (H₂S) is generated in the gut either by sulfur-reducing bacteria from inorganic sulfur (sulfate and sulfite) that is routinely used as a preservative in processed meat or by fermentative bacteria that metabolize organic sulfur compounds that are enriched in animal products such as red meat. (Ref. 3) Higher intakes of sulfur and sulfate were associated with an increased risk of Intestinal Bowel Syndrome, (Ref. 163) and fecal samples from patients with colon cancer have higher concentrations of H₂S than those from control individuals. (Ref. 164) Several sulfidogenic bacteria were found to be enriched in tissue samples from patients with Colorectal Cancer, including *Fusobacterium*, *Bilophila wadsworthia*, and the genera *Lactococcus*, *Porphyromonas*, *Odoribacter*, *Bilophila*, and *Pyramidobacter*. (Ref. Ref. 165, 166)’ Song, Chan, and Sun (2020)

¹⁶ The industrial processes producing the ultra-processed foods destroy the natural structure of the food ingredients and reduce or completely erode fibre, vitamins, minerals, and phytochemicals.

impact our biological functioning. An Italian study by Bonaccio et al. (2022) found that #InflammatoryMarkers, e.g., a higher white blood cell count, were higher in groups that ate the most ultra-processed foods. It is well known that our bodies trigger an inflammatory response for invading cancer cells and pathogens (bacteria or viruses) signaling our Immune System (including said white blood cells, e.g., Naïve CD8 T-Cells) to attack the invaders. Mantovani and Garlanda (2023) Do ultra-processed foods contain #active agents that engage a response from our Immune System? Inflammation? The Conclusion in the Abstract of Bonaccio (B) et al ends with: ‘[] the relation between a high ultra-processed food intake and mortality was not explained by the poor quality of these foods.’ B et al show that increased ultra-processed food consumption is associated with higher cardiovascular and all-cause mortality and the authors state that: ‘Ultra-processed food intake ... remained associated with mortality even after the poor nutritional quality of the diet was accounted for.’ A danger that appears to be independent of the poor nutritional quality of the diet meaning we need further investigation to identify the root causes of the dangers presented by ultra-processed foods; what #active agents are in those foods? A USA-based study reporting on a very large prospective investigation showed that high consumption of “total ultra-processed foods in men and certain subgroups of ultra-processed foods in men and women was associated with an increased risk of colorectal cancer.” “These associations remained significant after further adjustment for body mass index or indicators of nutritional quality of the diet.” Wang et al. (2022) This is a presentation of a danger independent of the body mass index or indicators of nutritional quality of the diet, again prompting me to ask what #active agents are in those foods, the root causes of the dangers.

- The above text block is the outcome of a review of Bonaccio et al. (2022), Wang et al. (2022), C. Monteiro and Cannon (2022),
- The above text block raised this question for me are we exposing ourselves to #active agents presenting a significant danger to us if we consume ultra-processed foods?

Using The EU Precautionary Principle

- Can these dangers be part of the messaging guiding people and populations toward plant-based diets? One of my hopes for this course is

to assist us in becoming **knowledgeable questioners/cross-examiners**, e.g., with knowledge of the **EU's Precautionary Principle** call for preventive action. Commission (2000) Here I will argue that the **EU Precautionary Principle** can be inspirational for allowing us to position ourselves as **knowledgeable questioners/cross-examiners** addressing uncertain dangers.

- Dietary interventions may also present opportunities to mitigate dangerous outcomes due to exposure to air pollutants. See Zhu et al. “*Interaction between plant-based dietary pattern and air pollution on cognitive function: a prospective cohort analysis of Chinese older adults.*” *Lancet Regional Health - Western Pacific*, vol. 20, 1 Mar. 2022, p. 100372 [https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065\(21\)00281-9/fulltext](https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065(21)00281-9/fulltext) **Interpretation published by authors:** “Plant-based dietary pattern may attenuate detrimental impacts of PM2.5 on cognitive function among older adults. Adherence to the plant-based dietary pattern could be used to prevent adverse neurological effects caused by air pollution, especially in developing regions.” I would be aware of this work but be cautious, so far no one is citing back to it, and the role of plant-based diets remains incompletely understood, it is undoubtedly a work in progress. Consider this, they do not have the Figure 2 of <http://bit.ly/Ornishetal2013>, see <https://www.evernote.com/l/AAfXvT7y0Q9CYK7XcMBJlkZYRlwS2LejmwS>. You might consider looking at it as an idea for a final paper suggestion and exploring the issues yourself. Final Papers are due May 2023.
- The promotion of an **#IdeasLab** as a teaching strategy in this course is attempting to raise awareness of Prevention Research, Environmental Health Science, Public Health, the **EU Precautionary Principle**,¹⁷ Pollution Gradients, Racial Gradients, and the Health Disparities. One of the objectives is to assist the course members in becoming **knowledgeable questioners/cross examiners**, e.g., with knowledge of the **EU's Precautionary Principle** call for preventive action in the face of uncertain but suggestive evidence of danger. Commission (2000) We are placing the **EU Precautionary Principle** as a foundation for informing ourselves we are the analysts who can be the interpreters of Public Health anomalies. My teaching experience suggests that casting the members as analysts of **uncertain dangers** assists the

¹⁷ Here I am arguing that the **EU Precautionary Principle** can be inspirational for allowing members of the course to position themselves as **analysts** who can be the rescuers. Can these dangers be part of the messaging guiding people and populations towards, e.g., plant-based diets? One of our hopes for our teaching is to be an assistant on the journey to becoming knowledgeable questioners/cross examiners, e.g., with knowledge of the **EU's Precautionary Principle** call for preventive action in the face of uncertain but suggestive evidence of danger. Commission (2000) See this call for a cross examiner's approach, <https://bit.ly/PrecautionaryAssessment>. Martuzzi and Tickner (2004) We are placing the **EU Precautionary Principle** as a foundation for informing ourselves that we can bring skepticism to a situation. Here I am arguing that the **EU Precautionary Principle** can be inspirational for allowing us to position ourselves as knowledgeable questioners/cross examiners addressing uncertain dangers assisting the flow of narrative generation, increasing the possibilities of learning for and forming Prevention collectives.

flow of their narrative generation, increasing the possibilities of learning for and forming *Prevention* collectives.

Work In Progress Conclusions, Upshot Reflections

- Dear Class Members, Thank you so much for your shared reflections in Perusall on a draft of this paper dated 14 Feb 2023. I would like you to consider sharing your reflections as Upshot statements,¹⁸
- In this draft, I shared one of my Upshot statements on ChatGPT as not being able to theorize, or generate a theory, here are my updates on this, dated the 3rd March 2023.¹⁹
 - The dilemmas created by people crediting human attributes to an AI tool like ChatGPT (C) appear to initiate because some people use words to describe to other people their internal states. I argue that is likely to be a short-changing act for some other peoples' internal states; I am thinking of situations where words and language do not suffice to embrace human minds and hearts.²⁰ Choices based on intuition, especially when the assessor/estimator/guesser cannot tell you why they chose x are to my best estimate not as yet within the realm of AI > Large Language Models (LLMs). I don't interpret C as producing a work product where x is a theory or a predicted outcome.
 - The results - work product from C - in our research I interpret as a modeling of the distribution of collected past human outputs in designated contexts; the collection of outputs accessible to C appears to be vast. I am not dismissing C's work product, I am arguing it will prove to be a very useful collaborator augmenting our analysis. I posit C is not theorizing, the theorizing: best estimates on outcomes is still a realm of humans and other life forms. Consider collaborating with C on future assignments, <http://bit.ly/SpeculativeWriting>. C will not be doing the best estimate on outcomes for you and me. Nor is C going to provide you with a prediction. It can give you a listing of the known, a collection of knowns that have been *recorded in a searchable text-based form*. It appears that C can curate the *recorded, searchable text-based forms* in response to our queries.
 - *I recommend you use ChatGPT with every assignment or project*; if you feel C's work product was valuable to your submission cite it as (ChatGPT, personal communication, March 3, 2023).

Any feedback from you on this would be great, this document is just a draft

¹⁸ Dear Class, I would like you to consider publishing some of your reflections that were shared in Perusall in this paper, please see this example kindly provided by one of your colleagues, https://bit.ly/LandUse_PlantBasedDiets.

¹⁹ Dear Class Members, I hope that in discussion with you, we can consider submitting this paper with the addition of some of your credited Perusall reflections to the journal ... Health Promotion Practice (HPP), 'a bi-monthly, peer-reviewed journal that publishes authoritative research, commentary, practical tools, and promising practices that strategically advance the art and science of health promotion and disease prevention.' See the journal at <https://journals.sagepub.com/home/hpp>.

²⁰ This is where I kind of trust that humans will always be out in front of AI. This quote is from Jean-Louis Lebris de Kérouac, appearing in his autobiographical novel 'On The Road' ... "The only people for me are the mad ones, the ones who are mad to live, mad to talk, mad to be saved, desirous of everything at the same time," *Imaginative Reasoning* as I am pitching it for our course, is skeptical reasoning using a totality of the circumstances you (position-ality) have gathered on the locality, position-ality.

I(KM) am working on.

Best to you,

KM

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References

- Analyses are conducted with R version 4.2.2 with the *Hmisc* (4.8.0), *rUM* (1.0.2), *table1* (1.4.3) packages used to preprocess and summarize data.(R Core Team 2022; Harrell 2023; Balise et al. 2023; Rich 2023)
- Balise, Raymond, Gabriel Odom, Kyle Grealis, and Francisco Cardozo. 2023. *rUM: R Templates from the University of Miami*.
- Bonaccio, Marialaura, Augusto Di Castelnuovo, Emilia Ruggiero, Simona Costanzo, Giuseppe Grosso, Amalia De Curtis, Chiara Cerletti, Maria Benedetta Donati, Giovanni de Gaetano, and Licia Iacoviello. 2022. "Joint Association of Food Nutritional Profile by Nutri-Score Front-of-Pack Label and Ultra-Processed Food Intake with Mortality: Moli-Sani Prospective Cohort Study." *BMJ* 378 (August): e070688. <https://doi.org/10.1136/bmj-2022-070688>.
- Cassoobhoy, Arefa, Jasmol J. Sardana, Susan Benigas, Jean Tips, and Alexandra Kees. 2021. "Building Health Equity: Action Steps from the American College of Lifestyle Medicine's Health Disparities Solutions Summit (HDSS) 2020." *American Journal of Lifestyle Medicine*, November, 61–75. <https://doi.org/10.1177/15598276211052248>.
- Chong, Bryan, Jayanth Jayabaskaran, Gwyneth Kong, Yiong Huak Chan, Yip Han Chin, Rachel Goh, Shankar Kannan, et al. 2023. "Trends and Predictions of Malnutrition and Obesity in 204 Countries and Territories: An Analysis of the Global Burden of Disease Study 2019." *eClinicalMedicine* 57 (March). <https://doi.org/10.1016/j.eclinm.2023.101850>.
- Commission, European. 2000. "Communication from the Commission on the Precautionary Principle," no. 154698 (February). <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52000DC0001>.
- Fernandes, Sujatha. 2017. "Chapter 1. Curated Storytelling." In *Curated Stories: The Uses and Misuses of Storytelling*, edited by Sujatha Fernandes, 15. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780190618049.003.0005>.

- Fischer, Stephen, Sherrish Holloman, and Kevin Moses. 2022. "NSF Racial Equity> Next Generation Environmental Justice," February. <https://doi.org/10.5281/zenodo.6450319>.
- Hardeman, Rachel R., Anna Kheyfets, Allison Bryant Mantha, Andria Cornell, Joia Crear-Perry, Cornelia Graves, William Grobman, et al. 2022. "Developing Tools to Report Racism in Maternal Health for the CDC Maternal Mortality Review Information Application (MMRIA): Findings from the MMRIA Racism & Discrimination Working Group." *Maternal and Child Health Journal* 26 (4): 661–69. <https://doi.org/10.1007/s10995-021-03284-3>.
- Harrell, Frank E, Jr. 2023. *Hmisc: Harrell Miscellaneous*. <https://hbiostat.org/R/Hmisc/>.
- Johnson, Wendy. 2021. "What Health Care Should Be." *Boston Review*, October. <https://www.bostonreview.net/articles/what-health-care-should-be/>.
- Kovach, Margaret. 2009. *Indigenous Methodologies: Characteristics, Conversations, and Contexts*. https://www.google.com/books/edition/Indigenous_Methodologies/jI9DEAAAQBAJ?hl=en.
- Mantovani, Alberto, and Cecilia Garlanda. 2023. "Humoral Innate Immunity and Acute-Phase Proteins." Edited by Dan L. Longo. *New England Journal of Medicine* 388 (5): 439–52. <https://doi.org/10.1056/NEJMra2206346>.
- Martuzzi, Marco, and Joel A. Tickner, eds. 2004. *The Precautionary Principle: Protecting Public Health, the Environment and the Future of Our Children; [This Publication Was Conceived and Assembled During the Preparation of the Fourth Ministerial Conference on Environment and Health, Budapest, Hungary, 23 - 25 June 2004]*. Copenhagen: WHO Regional Office for Europe. <https://apps.who.int/iris/handle/10665/346211>.
- Monteiro, Carlos A., Geoffrey Cannon, Renata B. Levy, Jean-Claude Moubarac, Maria Lc Louzada, Fernanda Rauber, Neha Khandpur, et al. 2019. "Ultra-Processed Foods: What They Are and How to Identify Them." *Public Health Nutrition* 22 (5): 936–41. <https://doi.org/10.1017/S1368980018003762>.
- Monteiro, Carlos, and Geoffrey Cannon. 2022. "The Trouble with Ultra-Processed Foods." *BMJ* 378 (August): 1–2. <https://doi.org/10.1136/bmj.o1972>.
- Moses, K. 2020. "Saving Lives, Speculative Design on #theCoIncidence of #Asthma Hospitalizations and #COVID-19 Disease, ... Ongoing Reflections on Sars-CoV-2, a Compromised Immune System and Risk Assessment," November. <https://doi.org/10.5281/ZENODO.4107131>.

- Ostrowski, Matthew P., Sabina Leanti La Rosa, Benoit J. Kunath, Andrew Robertson, Gabriel Pereira, Live H. Hagen, Neha J. Varghese, et al. 2022. “Mechanistic Insights into Consumption of the Food Additive Xanthan Gum by the Human Gut Microbiota.” *Nature Microbiology* 7 (44): 556–69. <https://doi.org/10.1038/s41564-022-01093-0>.
- Pater, Walter. 2020. “The School of Giorgione.” *The Fortnightly Review* No. XXII n.s. (October). <https://fortnightlyreview.co.uk/2020/10/school-giorgione/>.
- R Core Team. 2022. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.R-project.org/>.
- Rich, Benjamin. 2023. *Table1: Tables of Descriptive Statistics in HTML*. <https://github.com/benjaminrich/table1>.
- Song, Mingyang, Andrew T. Chan, and Jun Sun. 2020. “Influence of the Gut Microbiome, Diet, and Environment on Risk of Colorectal Cancer.” *Gastroenterology*, Colorectal cancer: Recent advances & future challenges, 158 (2): 322–40. <https://doi.org/10.1053/j.gastro.2019.06.048>.
- Wang, Lu, Mengxi Du, Kai Wang, Neha Khandpur, Sinara Laurini Rossato, Jean-Philippe Drouin-Chartier, Euridice Martínez Steele, Edward Giovannucci, Mingyang Song, and Fang Fang Zhang. 2022. “Association of Ultra-Processed Food Consumption with Colorectal Cancer Risk Among Men and Women: Results from Three Prospective US Cohort Studies.” *BMJ* 378 (August): e068921. <https://doi.org/10.1136/bmj-2021-068921>.
- Zhu, Anna, Hui Chen, Jie Shen, Xiaoxi Wang, Zhihui Li, Ai Zhao, Xiaoming Shi, et al. 2022. “Interaction Between Plant-Based Dietary Pattern and Air Pollution on Cognitive Function: A Prospective Cohort Analysis of Chinese Older Adults.” *The Lancet Regional Health - Western Pacific* 20 (March). <https://doi.org/10.1016/j.lanwpc.2021.100372>.