

🌱 Revenge of the pith 🌴

Surveying the landscape of plant-powered scientific literature 🍅

VINAY UDAY PRABHU, 🧑🏿💻 + 🇮🇳, AI stealth unicorn 🦄 Narwhal, United States

In this paper, we expose the glorious underbelly of scientific literature produced by tomatoes, veggies, soups, wines and the other under-rated denizens of the culinary world. We survey the landscape of this pith-anthology and perform both breadth-wise and depth-wise exploration of the brilliant work being churned out by this least expected corner of intellectual wealth production. We also address the "Pulp" fiction arguments emanating from the so-termed Google-scholar parser error fringe theory (GSEFT) 🤖 and conclude by setting the agenda for further exploration of the world of pith-powered literature.

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Data Availability:

The source code, data, and/or other artifacts *might* be available in the vicinity of https://github.com/vinayprabhu/Revenge_of_the_pith_Sigbovik2021.

1 INTRODUCTION

Speciesism [15] has blinded us. As we set our sights on colonizing another planet [8] 🚀, the vice-like grip we as humanity once wielded over the other species of our biosphere 🌍 in terms of primacy of scientific production has been loosened. Lost in our battles against global misinformation phenomena, global warming, the great extinction [14], the Oumuamua shenanigans [2] and the Planet Hunters X. KIC 8462852 histrionics [5], tik-tok and the worst of all, the utterly needless reemergence of Liverpool Football Club (LFC) 🏴󠁧󠁢󠁥󠁮󠁧󠁿 as an integrated-intelligence-aided tour-de-force [17], the plants have joined forces and pull a fast one! Right beneath our noses. As evinced by [1, 7, 19] and other works we will explore in this self-proclaimed-soon-to-be-cult-classic paper, the plants and other ne'er-do-wells of the consumable culinary world (🍅, 🥕, 🍆) have begun to publish a lot of scientific literature.

1.1 Paper organization

In Section 2, we survey the landscape of pith anthology. In Section-3, we preemptively address the parser-error conspiracy theory that might be peddled by some naysayers. In Section-4, we conclude the paper and lay the groundwork for future explorations.

Author's address: Vinay Uday Prabhu, 🧑🏿💻 + 🇮🇳, AI stealth unicorn 🦄 Narwhal, Palo Alto, United States.

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2 SURVEY THE LANDSCAPE OF PITH ANTHOLOGY

The glut of plant-powered papers seem to emanate from many corners of plant-academia. In this section, mindful of ~~laziness~~ brevity, we will focus on three main *root* camps: Menu-scripts from the kingdom of Salad-deen 🥗, Tomato resurgence 🍅 and Pan-veggie solidarity.

2.1 Menu-scripts from the kingdom of Salad-deen

“You can never be overdressed or overeducated.”- Oscar Wilde.

Inspired by this adage, the cast of Avocado 🥑, Cucumber 🥒 and Grape Tomato Salad, have *seeded* an interesting conversation on the aesthetics of salad-dressings by way of their brilliant monologue titled *Dressings to Impress* [1]. This dressing-tradition is continued in [12] that entailed a cross-collaboration between Avengers-esque hit squad containing Crispy Prawn Parcel, Vegetable Spring Rolls, Tomato Tarte, Lemon Tartlet, Mascarpone , Mini Chocolate Mousse, and , of course, the venerable Mini Lemon Meringue Pie, among others.

From the much vaunted realms of the *Sage* journals¹, we now cite two important works. The first is by a team lead by the extremely under-rated Bean wrap, that broke through (non)vegetarian barriers to collaborate with luminaries such as Mexican 🇲🇽 Style Chicken 🍗 and Bubble Coated Fish 🐟 resulting in the master-piece titled *Holiday inset* [9]. Continuing in this brave tradition of veggie-non-veggie solidarity emerges *Tutti frutti Thursday* [27] that also brought nuances from Vegetable Bolognese, Fresh Carrots 🥕, Green Beans, and, of course, Roast Potatoes 🍠.

It is important to note at this juncture that the original masterpiece that spawned this body of literature was in fact, [7] by the likes of steamed broccoli, oven fries 🍟, baked beans and mandarin oranges 🍊. What is fascinating about this particular work is that, even though it is dated 2017², Google scholar (which as we know **can never be wrong**) dates it to be 1966, which also opens up the possibility of veggies that fearlessly time-travel. We, however, do admit that this theory was a *Naan-starter* for some Luddite scholars who still nurse anthropo-supremacist viewpoints.

2.2 On tomatoes

The tomato-world has, in many ways, left the rest of the veggie-kingdom competitors dazzled to the extent that there is a very human-like *Publish-or-perish* culture omnipresent in their cadres (See Figure1 for an example which, keeping in line with most of Machine Learning literature, will now be conveniently co-opted as rigorous evidence) . The impact of this toxic culture can be parsed somewhere between the lines in Fig under salt stress [25] authored by the power-couple that is Response of two tomato. Amongst those tomatoes that did publish, we begin with the *beefsteak tomatoes*, that rose up to the occasion in the treatise *The beginning* [28]. And yes. As the reader must have guessed by now, this was THE paper that saw the reunion of the holy-soup-trinity of French onion soup -king louis xv 🇫🇷, Spicy chicken coconut soup 🍲 and the classy Lobster bisque 🍤. This 1995 classic, in many ways, also challenged the modern *Zizekian* norms [29] of soup making (See Appendix-A) and is ~~widely~~ wildly considered to be worth it's weight in gold(fish) 🐟. In *Optimizing Planting Design for Neighborhood Ponds* [21], the Rootstock tomatoes 🍅 deliver a masterpiece on the much ignored issue of neighborhood ponds, that left to their own vices, tend to quickly devolve

¹*-libel* aka please don't sue me bruv!

²See<http://stpaulnky.org/school/wp-content/uploads/sites/2/2013/08/JANUARY-ELEM-MENU-2017.pdf>

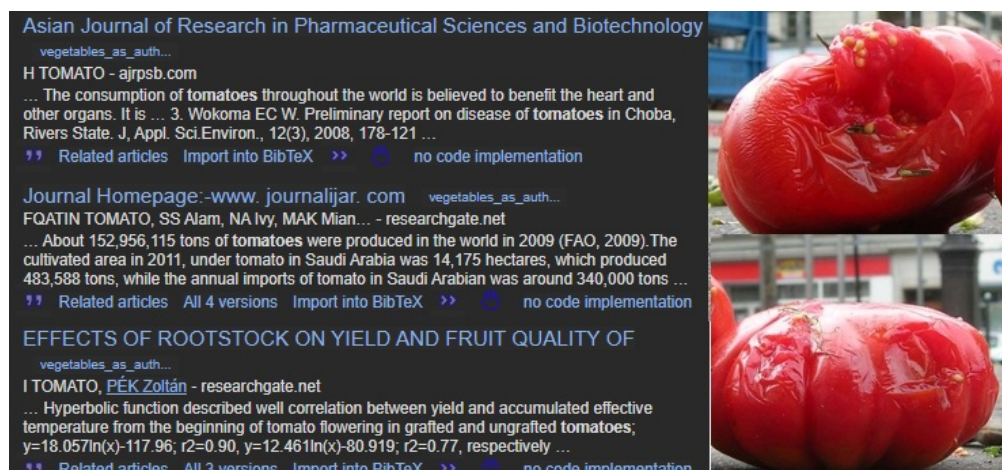


Fig. 1. The publish or perish culture amongst tomatoes.
The sub-image to the left: Tomatoes that published. The sub-image to the right: Tomatoes that perished.

into fishy tadpole-ridden swamps arresting any hopes of property-value *frogress*. In [20], we see a rigorous analysis of the effect of pesticides and fly ash on the macro and micro nutrients status of the soils and growth of tomato plants in presence and absence of *meloidogyne incognita* that was published in a rather interesting journal (See citation in references). Joining the ranks of post-modern culturo-technical icons such as I-pod, I-phone and *I, Robot*, **I. Tomato** unleashes a GOAT 🐐 classic titled *Are you anemic?* in an unsuspecting issue of the much blessed journal: *The Iowa homemaker*. In order to challenge the stranglehold of the salad-gang 🥗 in the *Sage* journals, the humble-yet-mighty Caper tomato joined hands with Venetian whole-wheat spaghetti to publish [22] that also entailed the glorious marinated duo of marinated mushrooms 🍄 and marinated olives. Lastly, [26] (At the University Of Dar-es-salaam 🌍) and [24] by the sagacious Gujarat Tomato 🍅 lead the charge to dismantle notions that tomatoes are authoring papers that solely cater to a niche audience in the global north.

2.3 Pan-veggie solidarity 🌱

Tired of being ravaged by birbs 🐦, the pan-veggie solidarity is seen in full force in the now-classic *Toxic plants for pet birds* [18] that elicited participation by an all-star cast of Oak 🌳, Acorns Flax, Amaryllis Four O'Clock Pansy, Apricot Foxglove Peach, Autumn Crocus Meadow Crocus Holly Peony, Avocado Horse 🐎 Chestnuts 🌰 Philodendron, Azalea Hyacinth Poinsettias and Baneberries Hydrangea Poison Hemlock. Whether they were genuinely toxic ☠️ to pet birds or if this was a sly way of ensuring survival-by-fright is a hot topic of debate amongst Toxic-Plants-for-Pet-Birds-enthusiasts. Facing similar onslaught by humans, the *allergen angle* is explored in [4], where the motley crew of Winter Vegetable Casserole, Fresh Pesto Pasta, Chunky Tomato Pasta, Baked Beans and Fresh Carrots ganged up and declared themselves as allergens to ensure survival.

Last but not the least, the *pièce de résistance* of all solidarity has to be the brilliant work aptly and wonderfully titled *Mere Baubles, 125'No Case to Answer', 168 Outcome of a Drugs Party, 129 Pervert*

Course of Justice, Attempt-ing to, 146 that saw the once-in-an-eon coming together of stalwarts such as Cannabis Leaves, Hotel Wine 🍷, 🍷 Railway Tomato, Repealed Statute, and, as you might have easily guessed Synagogue Fire.

3 🤖 CONSIDERING THE PARSER-ERROR CONSPIRACY THEORY

🧑 When we began writing this paper, a few of our colleagues exuded skepticism clinging on to some parser-error fringe theories. In the spirit of open-mindedness that Sigbovik has come to represent, we thought we should at least address these ideas in a calm coherent but firm fashion. To begin with, we amalgamated all the nebulous parser-error thought into a single cogent ansatz³.

Ansatz: *All of the papers supposedly authored by plants have not been actually authored by plants. They are just parser errors.* In the following sub-section, we dissect the above ansatz and address the concerns presented therein.

3.1 "Pulp" fiction arguments in favor of the ansatz

One rumor mill emanates straight from, ahem, a certain web-page conveniently titled *Google scholar help*⁴ that has claims such as *Google Scholar uses automated software, known as "robots" or "crawlers", to fetch your files for inclusion in the search results..* Naysayers will also drum up excuses from shortcomings of the parser such as: *Place each article and each abstract in a separate HTML or PDF file. At this time, we're unable to effectively index multiple abstracts on the same webpage or multiple papers in the same PDF file. Likewise, we're unable to index different sections of the same paper in different files. Each paper must have its own unique URL in order for it to be included in Google Scholar.* If these whispers are to be believed, the poorly documented close-source parser just grabbed certain unsuspecting online documents from school cafeteria lunch-lists and restaurant menus thus resulting in the verisimilitude of plant-authorship.

3.2 The cooked truth

We have reasons to believe that this robot-blaming 🤖 reeks of quickly hatched escapism. This has to be addressed in the context of Science's *beauty problem*. In [6], Joseph Brean clearly states *"There is a growing sense that biologists, psychologists, economists and even mathematicians can be preoccupied with subjective aesthetics over falsifiable science"*. Just because a narrative sounds elegant and may be even correct, it does not guarantee it's correctness. "Chameleons change color to match their surroundings", "It takes seven years to digest chewing gum", "Water conducts electricity" and "Goldfish have three-second memories". Elegant and popular myths [16]. All of them!

We argue that anti-veggie-authorship belief is the same kind of closet-minded thinking that prevents scientists from blindly, happily and truly agreeing with this theory that Oumuamua's peculiar acceleration[3] is a clear sign that it was a scout vessel sent by our alien overlords friends 🛸.

³The authors have a rough idea of what ansatz really is. But, given that it sounds way cooler than boring lemmas and theorems, they have duly proceeded to use it anyway

⁴<https://scholar.google.com/intl/en/scholar/help.html>

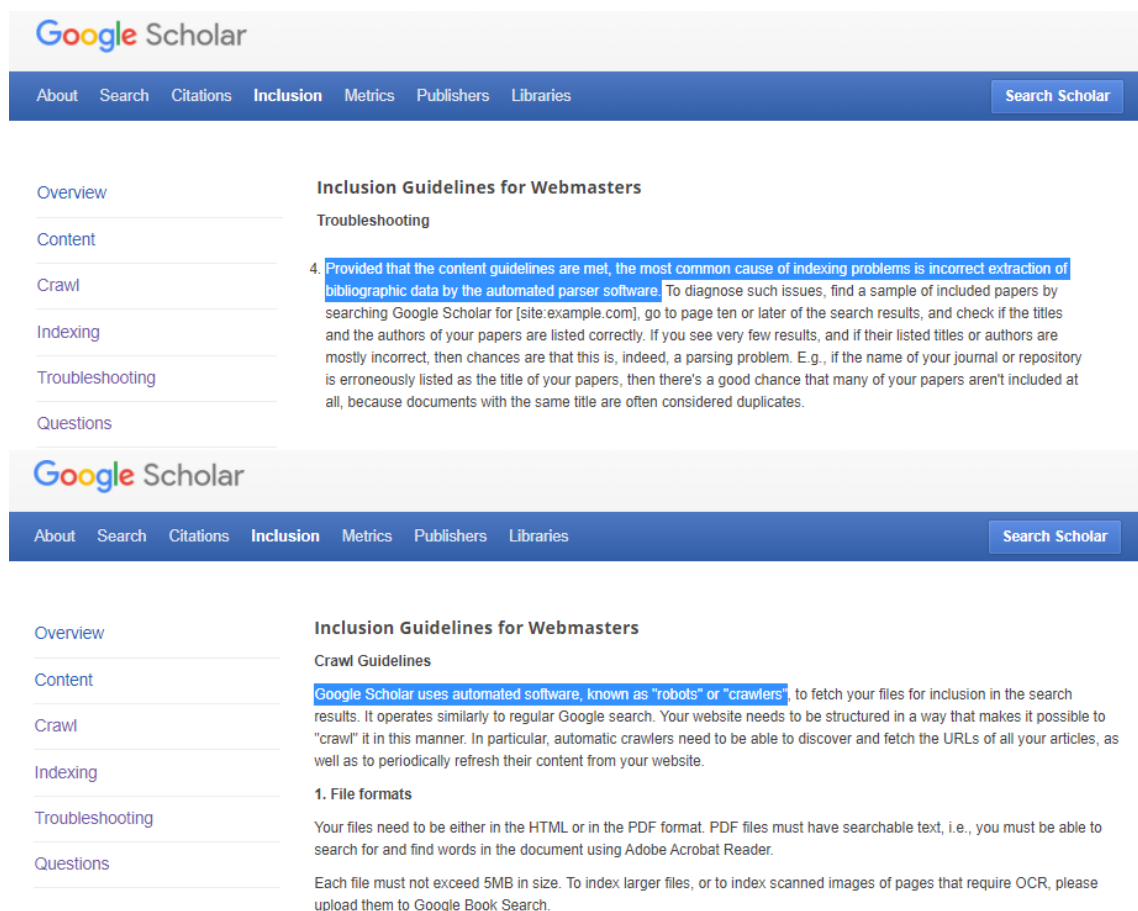


Fig. 2. Some fringe theory ramblings from "Google scholar help" page

4 CONCLUSION AND FUTURE WORK

To conclude, we argue that it shouldn't be this hard to imagine plants writing papers. Heck, even machine learning algorithms can do it! In order to demonstrate this, we threw the challenge to two neural network based solutions, namely X-LXMERT [10] and Aleph-Image: CLIPxDA11-E colab-notebook⁵. The results that will also double-up as an attitude correction to human skeptics who are bad at imaging plants are writers are captured in Figure 3.

As for future work, we would like to encourage the community to also pay heed to works such as [23] which is clearly authored by a precocious potato 🍠, [11] authored by a smart cookie and [13] where Ketchup-scholarship shines through in order to seek out and celebrate works from these beautiful oft-ignored corners of intellectual production.

⁵https://colab.research.google.com/drive/1Q-TbYvASMPRMXCOQjkxxf72CXYjR_8Vp?usp=sharing#scrollTo=BFsCy7jOn5cH



Fig. 3. *Plants writing papers* as imagined by the Aleph2Image and X-lxmert approaches

APPENDICES:

A HOW TO MAKE SOUP

Here is how anyone can make a good soup in one hour: prepare all the ingredients, cut the vegetables, etc., boil the water, put the ingredients into it, cook them at a simmer for half an hour, stirring occasionally; when, after three-quarters of an hour, you discover that the soup is tasteless and unpalatable, throw it away, open up a good can of soup, and quickly warm it up in a microwave oven. This is how we humans make soup. -Slavoj Zizek [29].

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