

Hello! I focus on equipping students with system and data skills and expert coding abilities for information synthesis.

At present, I instruct foundational computer science topics, ranging from machine and assembly to C++ via [patt/patel](#). My expertise spans theoretical system design, practical re-engineering, data transformation in Python and R, STEM communication, and curriculum development. I'm grateful for my quality master's in applied data science which enhanced my ability to develop quality graduate courses, such as [COSC-526](#) Data Mining with Spark, at [www.utk.edu](#).

My teaching philosophy emphasizes active learning through tools like Colab, Google Sheets, and Github. Students engage in weekly JAMs, connecting fundamental concepts, such as converting physical books into Python data objects. I provide codebooks in every class to expose students to algorithms, statistical analysis, and machine learning, similar to work performed in the Coursera module [Get Started with Python](#) in Google's advanced data analytics course.

I transform course materials into interactive workspaces, integrating theory, methods, and programming into workable learning objects and codebooks. Students actively reshape information into actionable Baudrillard commodities, preparing them for relationships with generative pretrained transformer (GPT) bots and AI agents focused on the ontological formation and advanced solving. The [Krokeresque](#) **new.REAL** may lead to unprecedented job elimination through the democratization of GPT. To facilitate upskilling and recall mnemonics, my teaching infrastructure includes

- Converting lecture audio to text and integrating it into the class corpus.
- Employing GPT tech to synthesize disparities, including lecture notes and textbooks.
- Emailing the disparity index and aggregating media into a central repository.
- Feeding the repository into a course-specific AI agent, further supporting student tasks.
- Facilitating upskilling and recall mnemonics while immersing students in the tech/social fabric of a **new.REAL****

code university.instructor	
portfolio.home industrial.reengineering	
recommendations research.experience	science.edit.+.tech.write tutor.an.volunteer
google.learning.lab.Get.Started.w.Python	
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instructor.brian's.lecture.thematic

Melitologic and arachnids, honeybee and orb-weaver spiders, inspire my adaptive learning approaches and serve as an ongoing lecture thematic to help bridge students to higher principal thinking by understanding creature visual, cooperation, and structural adaptations such as

- o A worker bee signals a sentry to clean a mite instead of infecting the hive indicating health consciousness, unity, and collective intelligence.
- o Spiders weave adaptive stabilimentum patterns to decoy from a predator's perception and even cloak their abdomen or cephalothorax in plain sight.

Arachnids => Antipredator strategies and visual asecthics

Robledo-Ospina, Luis, et al. [Visual Antipredator Effects of Web Flexing in an Orb Web Spider, with Special Reference to Web Decorations](#). *Die Naturwissenschaften* 110.3 (2023): 23. ProQuest. Web. 18 Aug. 2023.

Abstract Some visual antipredator strategies involve the rapid movement of highly contrasting body patterns to frighten or confuse the predator. Bright body colouration, however, can also be detected by potential predators and used as a cue. Among spiders, *Argiope* spp. are usually brightly coloured but they are not a common item in the diet of araneophagic wasps. When disturbed, *Argiope* executes a web-flexing behaviour in which they move rapidly and may be perceived as if they move backwards and towards an observer in front of the web. We studied the mechanisms underlying web-flexing behaviour as a defensive strategy. Using multispectral images and high-speed videos with deep-learning-based tracking techniques, we evaluated body colouration, body pattern, and spider kinematics from the perspective of a potential wasp predator. We show that the spider's abdomen is conspicuous, with a disruptive colouration pattern. We found that the body outline of spiders with web decorations was harder to detect when compared to spiders without decorations. The abdomen was also the body part that moved fastest, and its motion was composed mainly of translational (vertical) vectors in the potential predator's optical fow. In addition, with high contrast colouration, the spider's movement might be perceived as a sudden change in body size (looming effect) as perceived by the predator. These effects alongside the other visual cues may confuse potential wasp predators by breaking the spider body outline and affecting the wasp's fight manoeuvre, thereby deterring the wasp from executing the final attack. **Keywords** Deimatic displays·

High-contrast visual cues· Secondary defensive strategies.

Stabilimentum

A **stabilimentum** (plural: **stabilimenta**), also known as a **web decoration**, is a conspicuous [silk](#) structure included in the webs of some species of [orb-web spider](#). Its function is a subject of debate.

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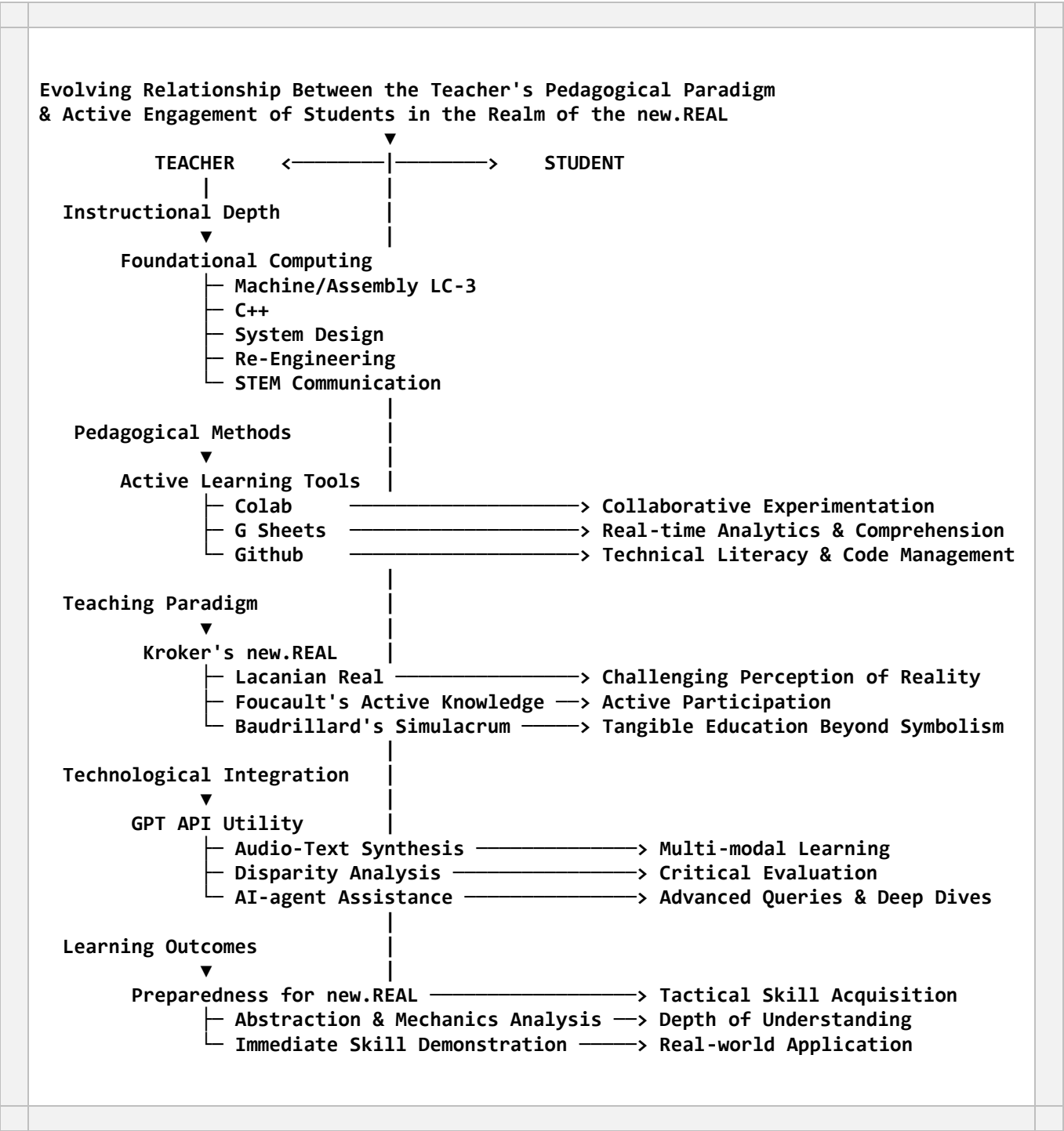
<https://www.youtube.com/watch?v=kNzg0PCVMqk>



<https://en.wikipedia.org/wiki/Stabilimentum>

GPT.ASCII.diagram.generated.schematic

- GPT performs remarkably well with ASCII information representations.
- I craft [DeepLearning.AI](#) templates to facilitate this form on information summary.



1. Festooning bees from Wildflower Meadows. Retrieved from: www.wildflowermeadows.com