CLARK UNIVERSITY

CHALLENGE CONVENTION.
CHANGE OUR WORLD.

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Currrently I instruct foundational compute from machine and assembly with LC-3 via patt/patel to C++. My expertise also spans theoretical system design, practical re-engineering, data transformation and programming constructs, and STEM communication, complemented by my data science training and course authorship, like COSC-526 data mining with Spark.

I employ an active learning pedagogy, leveraging tools like Colab, G Sheets, and Github. Taking inspiration from bee festooning, students collaborate in JAMs, linking concepts and tackling challenges, like analyzing a physical book's word count within an hour. My aim? Equip students with immediate, tangible skills for preparedness during un.REAL talent and task replacement.

An embodiment of a Lacanian real, a Krokeresque new.REAL central to my teaching paradigm. Education is a performative act, lived and crafted, not just passively consumed. The paradigm challenges traditional passive learning and draws on Arthur Kroker's concept of *body drift*, i.e., a blend of humanity with technology and Foucault's active knowledge structures. Students don't absorb but actively shape, create, and immerse themselves where education isn't symbolic but a tangible, actionable commodity echoing Baudrillard's simulacrum. Efforts showcase immediate skills, use of abstraction, ontological formation, and problem decomposition.

To augment classroom learning and student engagement, generative pretrained transformer (GPT) APIs

I. Extract and clean audio lectures and lecture notes.
II. Synthesize disparities between audio, lecture notes, and textbook.
III. Email disparity matrix and aggregate digested media into a central repository.
IV. Harness repository for bespoke AI.agent substrate enabling students to pose intricate curriculum-related queries for precise answers.
V. Work centers on skill and recall mnemonics to unpack our 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

oning bees mending

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stabilimentum
zigzag
/\/\/\/\/\
decoration,
or warning?

lecture.thematic

Melitologic and arachnids, mainly 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

- A worker bee signals a sentry to clean a mite instead of infecting the hive indicating health consciousness, unity, and collective intelligence.
- 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-fexing 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-fexing 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 afecting the wasp's fight manoeuvre, thereby deterring the wasp from executing the fnal attack. Keywords Deimatic displays·
High-contrast visual cues· Secondary defensive strategies.

Stabilmentum

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.

Baltimoreandohiorr(2019), https://www.youtube.com/watch?v=kNzg0PCVMqk

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

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

GPT.generated.schematic – not too shabby