

# Proposal to Professors Emeriti Network: Exploratory Study into *Living Textbooks*

I have been interested in technology-assisted education for decades. The recent AI-craziness has intensified that interest in both its potential and risks. I have this idea of a *Living Textbook* that leverages the emerging AI-assisted tools to create personalized and interactive conversations for mentoring others about the specific research domain. This does not replace traditional textbooks and papers. Instead, it consolidates and focuses this knowledge base for long-term personalized mentoring.

Prof. Michael Ginzberg introduced me to the PEN community, whose members have established vital research streams with their unique knowledge and skills. Beyond the usual set of published papers, established researchers have traditionally written textbooks to set a firm foundation for their frameworks and applications, in hopes of continuing research by future generations. There seems to be a good match of this *Living Textbook* idea with the PEN community. Below is a proposal to consider...

- **Objective:** Preserve the unique knowledge/skills of emeritus faculty for mentoring future students & researchers engaged in an established research stream.
- **Approach:** Explore the feasibility of *Living Textbook* to achieve these objectives using current AI-assisted tools. Report back to PEN membership in summer 2024 to decide future steps.
- **Initial Steps:**
  - Hold a one-hour virtual discussion among interested PEN members. March 21? Will require someone to host this meeting. I will present more technical details and clarify goals.
  - Then, create the initial study group that will prototype their unique OpenAI custom GPT acting as a mentoring tutor for their specific research domain. See Requirements below.
- **Goals:**
  - Evaluate SOA of AI-assisted education, revise roadmap, initiate the second iteration
  - Utilize existing resources (textbooks, class notes, research papers) as the knowledge context
  - Adopt the conversational style of a mentoring coach' who teaches Socratic-style, along with inspiring and challenging.
  - If promising, initiate similar study groups among the PEN community, and document our experience for others.
- **Requirements for Initial Study Group:**
  - Three to five persons from March to May 2024, meeting virtually once per week
  - Be tech-savvy (tech-fearless?) amid this current crazy explosion of AI-assisted technology.
  - Build your own prototype. English only. Python skills are not required (but are desirable).
  - The goal is to explore the limits of this new tech, not to build an operational system.
  - We will share prototypes, document experiences, evolve prompt/context text, ...
  - As the initial development stack, we will use [OpenAI custom GPT](#) toolset, which requires the OpenAI PRO subscription for US\$20/mo. Note: This service is not available in all countries.

For my own interests, I am willing to facilitate this initial study group. If you are interested, attend the virtual discussion meeting whenever scheduled. I predict that we all will learn a lot!

--Dr. Richard Hackathorn ([Email](#), [LinkedIn](#), [X/Twitter](#))