Teaching with AI at UF

Exploring Concerns, Support Needs, and Early Adopters

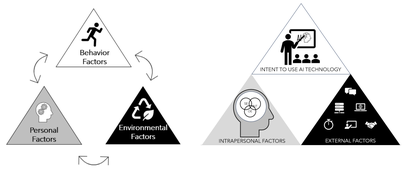
Margeaux Johnson
Learning & Organizational Development Specialist
AI² CENTER AI LEARNING ACADEMY | UNIVERSITY OF FLORIDA

Background

As UF "Builds an AI University" where AI spans the curriculum, it is essential to understand how faculty are conceptualizing AI in relation to their teaching practice. This allows both formal and informal efforts to support AI integration across campus and continue the conversation with stakeholders from all disciplines.

Theoretical Perspective

This research project comes from a lens of faculty professional development located in a centralized unit at UF. The original survey design is grounded in a framework of Social Cognitive Theory (Bandura, 1986); specifically Triadic Reciprocality and Social Cognitive Career Theory (Lent, Brown, and Hackett, 1994). In this model external, personal, and behavioral factors influence decision making and choice in careers.



External factors influencing technology behaviors include the availability of AI software and hardware, AI training resources, and time to develop AI integrations. Internal factors include self efficacy with AI, outcome expectations for AI technologies, and interest in AI.

Methods

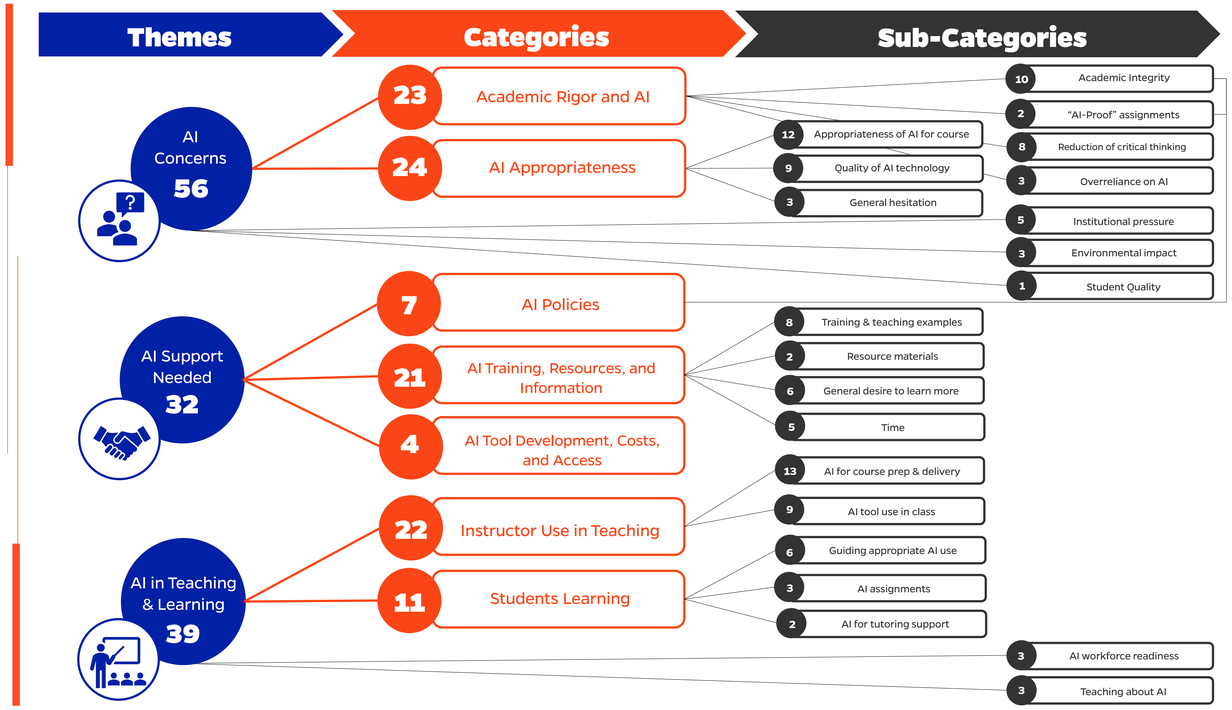
In fall 2024, a validated instrument based on the Interpersonal Technology Integration Scale (Niederhauser & Perkman, 2008) was distributed to all UF instructors of undergraduate courses. 272 faculty responded within a week and 117 provided open-ended responses about AI in their teaching practice. The responses were analyzed using Clarke & Braun's (2006) six-step thematic analysis method. This poster represents a slice of the qualitative data and will ultimately inform quantitative analysis and qualitative interviews with participants.

Results

"Is there anything else you would like to share with us about AI as it relates to your teaching?"

Key themes emerged.

1) **AI Concerns:** AI-hesitant instructors at UF were concerned about the potential for AI impacting academic rigor including academic integrity, the reduction of critical thinking and deskilling of students due to over-reliance on AI. They also expressed apprehension about the appropriateness of AI for their courses and the general quality of AI technology.
2) **AI Support Needed:** AI-curious instructors at UF needed university support through training, policies, tools, and resources.
3) **AI in Teaching & Learning:** Instructors who had already implemented AI in their courses primarily described using Generative AI tools for course design and delivery, or "AI for teaching support." A subset of instructors described using AI to cultivate student learning including guiding students on appropriate use, developing AI assignments, and leveraging AI as a tutor.



Sentiment

34 Positive attitudes towards AI in Higher Education

56 Negative attitudes towards AI in Higer Education

Internal vs. External Factors

94 Personal Factors (interest, outcome expectations, self efficacy, beliefs)

35 Environmental Factors (Institutional support, technology access, time)

Concerns

- *"Undergraduate students do not have enough base knowledge in their subject area(s) to effectively use AI without plagiarizing."* (CLAS, Communication)
- *"I view AI as a shortcut for many students and it is abused regularly in my courses by students trying to get quick answers without putting in work."* (CALS, Soil, Water, and Ecosystems Sciences)
- *[I] "have no interest in the use of AI in a way that it hinders intellectual growth and critical thinking."* (College of the Arts, Music)
- *"The use of AI by students in early computing courses can be counter-productive in the long-term. Rather than developing the fundamental skills necessary to tackle higher-level problems (which may not have pre-existing solutions), students could develop a reliance on tools that "already have all the answers."* (College of Engineering, Computer Science)
- *"when your class is all about teaching the power of making personal connections and understanding prospective clients motivations and preferences for processing information to win the pitch, AI does not necessarily create a ton of value for my course in particular"* (College of Journalism and Communications, Advertising)

Support

- *"We teachers definitely need effective AI training."* (College of Agriculture and Life Sciences, Geomatics)
- *"I want a relevant training path with shortcuts to what I need. Some incentive and credit from the institution for AI training on top of my load would be welcome because that won't decrease."* (College of the Arts, Design and Visual Communications)
- *"The more training I can get, the better. As it stands now, AI experience/apps are by spread by word of mouth."* (College of Liberal Arts & Sciences, Anthropology)
- *"I would like to use AI in my teaching but I know absolutely nothing about how to begin. I would love some basic pedagogy specific to teaching in the humanities."* (University Writing Program)
- *"At UF, we need to have more clear and effective communication on AI as some educators are punishing students for using AI, whereas other educators (like myself) are incorporating the use of AI into their curriculum."* (College of Agriculture and Life Sciences, Social Sciences)

Strategies

- *"AI can certainly be of value in helping to prepare materials for many courses."* (College of Journalism and Communications, Advertising)
- *"I currently use AI only to help me understand things better when I review material for a class or reading manuscripts."* (College of Engineering, Materials Science)
- *"With AI, I'm looking forward to creating more tailored educational experiences that meet the diverse needs of my students."* (ID234, College of Arts, Dance and Media)
- *"I use it heavily in my statistics classes, where I use it to show students how to seek help with programming and debugging statistical code."* (College of Public Health and Health Professions)
- *"I have developed a new course incorporating personalized bots for each student to teach, complete with an accessible documents library from which they can retrieve content…"* (College of Health and Human Performance, Sports Management)

Conclusion

These findings highlight that instructor concerns must be discussed for broader adoption. Early adopters could serve as valuable community leaders in their colleges and disciplines. Institutions looking to promote responsible AI integrations into academic disciplines should provide structured training, resources for instructors, clear policies, and exemplars of effective AI use in teaching.

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