

"I Cannot Stand AI Users!"

Okay, normally I keep my mouth shut on certain issues that affect my actual job, but I think it's high time to air a little dirty laundry. Put simply, I have *completely and totally utterly had it with AI users in academia*. It is my job as your teacher to ensure that you do the work yourself -- not rely on some machine. You are here to develop your own thought patterns within your own fleshy mind. It doesn't have to be perfect, it doesn't have to work on the first try, you just have to do *something*.

I think the best way to try to figure all of this out is to start by describing some of my students. These are your normal college electrical engineers -- brimming with hope, they walk into my class and see the instructor standing up front. Usually, I find that I sit on a stool, but I opted to stand for the first class. As they entered, they sat down at the desktop workstations I have in there, and awaited instruction. The TAs and I introduce ourselves, and it's off to the races.

They had a pre-assignment they had to knock out before coming on (lest they lose a bit of credit). Now, my class is about programming the STM32 microcontroller line in C. However, there's a caveat: we don't use any libraries or existing SDK tools to expedite the development process. We manually write values to configuration registers and have a not-very-good debugging tool as our only meaningful error-squashing aid. No matter, though; it may be primitive, but in the hands of a clever user... it's more than enough. After all, you can single-step your program line-by-line, examine any memory address (and, by extension, view the current state of any control register or I/O device on the microcontroller), and update any memory value!

So, then, how did that assignment go? Well, if they would have read the assignment directions, they'd know that all they had to do was copy-and-paste the C program I provide them with into their editor, compile it, and try to troubleshoot why it doesn't work properly (don't worry, I also tell them what the issue is; it's less of a difficult task and more of "showing them the ropes" they'll need to know about for the rest of the assignments).

They're supposed to *copy the program that I literally gave them*. What do they do instead? They show up to my class, and they have the most obvious AI-generated code I've ever seen in my life. Not only is it totally unrelated to the actual task at hand (and therefore totally divorced from the code they were provided with), but breaks all of the "rules" the course designers set for them: they used the STM32Cube HAL (remember, they're supposed to do everything raw and by-hand), the I/O pin configuration is all wrong, and it just goes on and on from there. I think the best way to describe this experience is through a little narrative exposition:

As they enter the classroom, they see the one up front that looks like she'll be the main one. Though they walk through the front door, they see several TAs seated at the back; up front, the supervising professor is ready. She greets them, and tells them how the class will be structured, then the leading instructor comes up from the back. She looks rather memorable, and is just so whimsical in her presentation. As she goes around to ask the students why they're here (even after the supervising instructor had already done something similar with a "where are you from" question), her heart sinks as nearly all of them say something to the effect of "because my parents want me to be an electrical engineer" or "I hear there's lots of money in computer engineering."

She sharpens her wit and wipes the look of disappointment off of her face. "Well, that's fine, we can still have fun anyways!"

She looked so hopeful.

She went around to observe everyone's pre-assignment. She was so giddy with anticipation, but it gradually fell as she checked off their assignments. Points for points' sake, she thought... well, they did do something for the pre-assignment, so she guessed they deserved a checkmark. By the time she had gone through, she looked at one of the TAs. She looked at them, and was quite blunt: "I think everybody just used AI."

Her look of happiness had turned to scorn.

That next week, it was more of the same. Fix the provided program, come to class, throw it on your MCU board, and debug it with the aid of both the software debugger and the electrical test equipment provided at everybody's desk. She had prepared a slide deck for them, not unlike the ones posted on the assignment listings on the course Canvas page, but they were made with her own hands. That night before, her fingers glided over the keyboard as she composed something she thought would legitimately help those students. When she got up there and presented, the looks of confusion upon the faces of those in the classroom audience were stout -- it was almost as if she had stumbled in, looking like she had just rolled out of bed, and started giving a presentation on 2-stroke engine design instead of something on-topic like embedded systems programming.

She would then drill the students with questions that anybody could answer. "How would you go about troubleshooting a faulty I/O pin?" As soon as she said that, the typing from about three students started. One of them raised his hand, and she called on him: "Troubleshooting a faulty I/O pin on an STM32 is mostly about systematically ruling out configuration, software, and external causes before blaming silicon. Here's a structured approach that mirrors how embedded engineers usually do it in practice. One: Start with the obvious (but critical) checks. Pin multiplexing slash alt-"

She cuts him off with a sudden and stern "okay, enough!" The sound of her voice reverberates through the classroom, and everyone looks up in their seat. The student was still staring at his monitor when he said that, totally zoned out that she was livid at what she had just heard. She walks over, and lo and behold, he typed her question into ChatGPT and was, predictably, literally reading it off the screen. She skips the other questions on the slides, and goes straight to checking off everybody's pre-assignment on that second assignment.

Like lightning striking twice, she sees nothing but more AI-generated code. Some of the comments in the code were completely egregious, too:

```
int run = 1; // Added to fix your "main" function
```

It was so bad, some of the students' programs wouldn't even compile because the source code was full of Unicode single- and double-quotes; the C compiler would puke on any Unicode characters because they wouldn't copy-and-paste out of their web Outlook client properly. Every now and then, she would see a student with comments that really made her heart sink:

```
void keypad() { // <GREEN CHECK EMOJI> Added keypad function
```

(I would love to include the actual green checkmark, but I typed this on a terminal from 1983 plugged up to an old mainframe running its native document processor program)

In her confusion and fermenting rage, she goes up front to ask the students how many of them used ChatGPT. All but one raised their hands, across all of the three class sections she taught. As the classes droned on, she'd entertain the kids as they worked (after the lecture, of course; she always started with one of those simply because she loved giving them) by telling stories and taking questions as the class went on.

Eventually, it was time for the final project to come up. For the lecture on that one, she included listings of various code snippets, since the assignment directions (she thought) were rather vague and not super helpful. The code snippets were incomplete, so she drew a flowchart on the board for one of the tasks: design and implement a feedback control algorithm to read the speed of a motor's drive shaft from a tachometer and variate the speed accordingly while the drive shaft was under load. Now, she always wrote with this characteristic script cursive, probably because she was forever stuck in the past yet so intimately familiar with the future that was yet to come. She asked if everyone could read cursive, and mostly everyone stated that they

could. Everything was pretty much going fine, and she noticed that the students took pictures of her flowchart on the board. No matter, she figured, she too was a veteran of having poor eyesight and being unable to see the board at a distance.

She had left a code snippet on the projection screen adjacent to the whiteboard; it was probably 25 lines or so, nothing much. However, it was divided into two columns... something she did such that the font wasn't too small. She goes back to sit with the TAs, and, to her utter horror, a student whips out his phone, photographs the screen, and asks ChatGPT to transcribe the image. It does so, slowly, consuming who knows how many kilowatts, and does it wrongly. In that moment, she snaps. It was time to let those future loser techbros have a piece of her mind.

"All you people do is use ChatGPT for literally everything! Well, guess what! Not anymore! Y'all are going to put your phones in this bucket (she whipped out a plastic tub from a cabinet faster than anyone noticed her doing so), and if I see a personal laptop out, I'm going to fail you on this assignment. This stuff is *trivial*, people. This stuff is so easy that I will literally give you the answers if y'all would just ask. I'm not here to fail you, but I will fail you if you intentionally try to not do the coursework. This is a one-credit-hour class, there is no reason anyone shouldn't get less than perfect here. However, as per the Student Handbook I know none of y'all read, it states that you must turn in your own work. I've read your assignment writeups y'all have submitted, and I know good and well that most of y'all passed around the same document and tweaked it. I also couldn't help but notice that there were a lot of em dashes in y'all's reports. Everyone knows what an em dash is, right?"

The room goes silent.

The students all shake their heads or have a confused look on their face, except for one. She's smiling. She's also a TA.

"Yeah, case in point, case in point. If y'all didn't know what an em dash is, why did y'all use them so much? Y'all think I'm stupid, y'all really think I do."

She opens her backpack, and pulls out a binder. In a haste, she whips out a stack of papers from the front pocket, and holds them up.

"I'm covering the names to protect the guilty, but would someone please tell me why I'm seeing the same pictures on these three assignments? Anyone?"

She walks over to the three students, and repeats the "Anyone?" part.

She is pissed, and the other TA in the back has a look of much excitement on her face.

"None of y'all are going to do even remotely well on the presentation. I know I sound threatening as all get out right now, but, seriously, I am the least threatening girl y'all will ever have to deal with. I'm intentionally going easy on y'all because I don't want y'all to go home and feel as if I'm out to kill y'all's GPA or something, nuh uh, I'm here to teach y'all things you've got to know to get a job! Now, does anyone have any questions?"

The TA at the back stands up.

"You should probably listen to her, because she's gonna be the one that asks you questions and also grades your presentations."

The lead instructor was still up front, her face palpable with the rage she was feeling.

The girl that looked like somebody's kind alt-chick lesbian girlfriend was letting her emotions run wild, and she proposed an interesting solution.

"I know y'all are still going to blow this even if I give you the answers, so here's the entire assignment program on this last slide. If you type this in and fill in the blanks, you will get a 100 on the assignment plus the bonus. If I catch you using ChatGPT for this, you will get a D, no questions asked. It's blatant academic dishonesty."

She paused for a moment.

"Look, I'm really not here to embarrass y'all for having AI girlfriends or whatever low-brow thing I could do here, I just want to see y'all's own actual work! I want to see real human code! Even if it sucks, you'll still do fine if you just... *do your work*."

The presentations were next. This was it, it was sink-or-swim for the students. They would either blow her away with their presentation style, or get absolutely humiliated in front of half of the electrical engineering professors in the department. Most of the presentations were predictably terrible, with some students not even being able to answer basic questions; those were the ones that ended up getting a well-deserved F. The last student presented, and then the room went silent.

There was something she had joked about doing for about a year up to that point, and it was her TAs that ultimately pushed the idea through. While the fourth student was presenting, one of the TAs got up, went to her office, and rolled a rather unusual device in: something that would, in that moment to those students, show them what real human skill would do -- something that an AI had not been trained to do and would not be able to do with the same precision that a real human would be able to do. He pushed the apparatus just to the left of the classroom door, such that none of the presenters would see it. When the last presentation was over, the room went silent and dark.

The lead instructor stood up, thanked everyone for their participation, said that grades would be in shortly, but that she too wanted to give a presentation. She walked up to the front, up to the computer that drove the projector. Her hands flew over the keyboard and mouse as she pulled up a video file on a flash drive that conveniently had everyone else's presentation on it. The video started with a black screen. Then, just like that, color-changing moving spotlights turned on -- she had hidden them neatly in the corners of the room, amongst various books and bits of test equipment. As soon as it happened, the TA rolled in the device from her office: it was a console to an electronic cinema pipe organ she had built. She had kept it in her apartment that past semester and played it as a nuisance to the fratboys next door, but the anti-AI TA had given her an idea she couldn't not act upon.

The room filled with music as she jumped onto the bench, and the two other TAs smiled with excitement as the show started. The video was cued perfectly as the loud sound of trumpets blared. The students were falling asleep or on their phones, but this shocked them back to reality. The sound of the loud fanfare trumpets was quickly displaced when the title of the movie flashed on screen:

"Jimmy's Magic Typewriter."

The students were blown away at what they were seeing. She pushed a button under one of the organ keyboards, and control switches all over the console flipped down. A MIDI-synthesizer-esque cymbal crash filled the room, and was quickly replaced by the rhythmic sound of what sounded like an orchestral plucked string bass playing alongside a tuba and flute as tall as a person. The song was whatever she could wing off the top of her head, and ended up sounding something like one would hear walking into a silent-film-era movie theater over a century ago.

The sound of the mighty silent-film instrument filled the entire floor, and the screen showed the protagonist: a young 20-something man walking out of a classroom. He held a paper that read "essay assignment" in his hand, and the video cut to him sitting at his home. On his desk lay an old (or, perhaps, in the time the movie was set

in, new) typewriter. He placed the assignment to the left of his typewriter, and the camera cut to it:

"Write an essay about the emotions you felt reading F. Scott Fitzgerald's new novel, *The Great Gatsby*."

He placed his hands on the typewriter, re-typed the essay prompt, and ejected the page. He flipped it around, and the keys on the typewriter started moving on their own. The lead instructor looked upon the picture screen and she admired the cleverness of her film studies friend, who had a clever idea of tying fishing lines to the bottom of some of the keys, pulling it past a metal rod serving as a stationary pulley, and were tied to the fingers of another friend... the action looked so real. Her organ music changed suddenly to something that sounded like it would be heard on that radio -- a perky tune, but one that was overtly simple and devoid of the strong musical flair heard on the first song. The young man sat idly by, occasionally mindlessly feeding paper into the magic typewriter. The magic typewriter had a tank at the back he had to constantly pour teapots of hot water into, so he shuffled to and from the kitchen as he maintained the machine. It distracted him constantly.

The same student that scratched his butt and wiped his mouth with his sleeve was now laughing, presumably at the young man in the video's seeming enslavement to a machine. It was pretty obvious what the magic typewriter represented, even to the students in her class who struggled with anything that didn't involve talking to AI girlfriends or listening to a non-stop jet-stream of conspiracy slop. A moment not too soon, the movie cut to a picture of the paper; it began with:

As a magical typewriter, I cannot convey the emotions you would feel reading *The Great Gatsby*. Nonetheless, I felt a quiet, lingering mix of wonder and sadness.

The camera cut to him returning to class, wherein each student would stand and read their essay aloud. There were only four students in the classroom on the movie screen, but that had more to do with the fact that Evie made the movie on short notice, and couldn't get tons of people to sit in her classroom. The young man sat in the same seat as one of the worst AI offenders in her class, but it was not the man's turn to read. It was this one girl's turn first, and she read her essay "aloud" (without sound, of course; it was a silent movie, after all) while Evie played a whimsical march. Another guy stood up, read his essay with flair and power, to the tune of a song from a video game. All of the students but the young man with the magic typewriter had handwritten their essays. When it was his turn, he stood up, and began reading the paper; his face was expressionless and he looked half dead. The ordinarily-good music turned into something without any bass or accompaniment, and only the sound of a flute remained.

The movie screen showed the professor, played by none other than Evie herself. She had a very angry look upon her face as she stomped up to the student; she ripped the paper right out of Jimmy's hands, wrote an F on it, circled it, and threw it on his face. The movie cut back to the man's bedroom, where he was having a textual conversation with his magic typewriter on how to talk to girls. Predictably, it was giving him bogus advice... and then it started to show affection towards him. The music changed to a rather romantic song, reminiscent of the sounds heard from those big vibrato-laden flutes while people kissed on the screen. He flashed a facial expression that signified to the romance-deprived audience that he was in love with his typewriter, but then the typewriter repairman came.

The repairman came and replaced a component of the typewriter labelled "4o" with one labelled "5." He then fed more papers into the typewriter for another essay assignment, then took it to class; it was so bad that he got laughed out of the classroom by his own peers as they pointed and made funny faces at him... all to the tune of The Wedding of the Painted Doll. He went home and seemingly consoled with his magic typewriter, but it was no help anymore; furious that he stormed out of his class, Evie followed Jimmy but didn't enter -- she did bang on the front door to the sound of a sampled bass drum on that organ. Jimmy opened the door, and she said...

"Look, I just want to talk to you."

The music transitioned to a strong ending, and the ending card flashed with AI-generated text that could not be read. The juxtaposition of that card and Evie's organ playing sent her students in that classroom for a spin, and, with the final hit of the synthesized orchestra, she got up, took a bow, and walked out.

Eight students failed that semester.

I still haven't gotten over that.

Now, of course, I did embellish that story a bit, but I would also like to take a moment to say that this paper is somewhat of a cry for help; my students are leaving my class COMPLETELY unprepared: they would be lucky to pass a technical interview by the skin of their teeth, and are seriously looking at a life of unemployment at the hands of these moronic AI models. When I was administering a final for another class, I looked visibly shocked as I literally could not believe what I was looking at: there were students who couldn't write the RISC-V assembler code for a dang loop! I don't say this all willy-nilly and I mean this when I say this: academia is over.