KNIGHT*Li*ne

From the Upper School Director and the Middle School Director
John Schafer and La Vina Lowery

Thoughts on AI and Preparing Students for a Rapidly Evolving World

These certainly are interesting times. As you've no doubt seen in the news, several new generative AI tools—Open AI's ChatGPT (and now GPT4), Microsoft's Bing AI, and Google's Bard, among others—have taken the world by storm. With capabilities such as solving math problems, writing computer code, and drafting essays, these rapidly evolving technologies have raised many questions about the future of education and the skills our students will need to thrive in the years to come.

Much of the national conversations surrounding education and these tools have centered around catching students who use them to cheat school (and themselves) by having them complete their school work as well as the steps schools need to take to counter this possibility. And while Menlo is certainly working to manage this aspect, we are much more interested in thinking more broadly about how we can engage with these technologies in an intentional way and how they will inevitably shape the way we teach and learn, because these tools are not going away and are only going to become more powerful and spectacular in their capabilities. As such, there's no doubt they are going to change the lives our students lead.

As a faculty, we've been devoting meaningful time—in our professional development spaces, team meetings, voluntary task force discussions, and lunchtime conversations—to exploring how we might be able to leverage these technologies in the service of making a Menlo education even more rich and relevant for our students. We've engaged in hands-on testing, had thoughtful discussions, and reviewed outside resources,

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all in an attempt to begin to understand: What can tools like ChatGPT do? What can't they do? And, if they're here to stay, what might it look like to work with them, rather than against them? And while we won't have all the answers, it's clear that teaching our students to be thoughtful, wise, and critical users of emerging AI technologies will need to be a critical component of our work moving forward.

These tools are so new and powerful that we are, of course, reminding our students that submitting work that is not one's own goes against our school values and academic integrity standards. Students and families choose Menlo to be challenged in their learning, and this type of shortcut will deprive them of the benefits our program offers, including the intellectual strength-building that comes from wrestling with complex ideas and problems in their coursework. As one Upper School student insightfully shared with her teacher, "I feel like AI is not a substitute for actual learning. AI should be more of a tool; using it as a means to an end completely sidesteps the purpose of school."

We trust our students, and with guidance from their teachers and the supportive scaffolding our program provides, we believe AI tools can be used responsibly and help engage students and enhance their learning. Our faculty is also thinking about ways to reimagine assignments and assessments to engage students in ways that naturally limit their temptation to use these technologies in the first place.

Like the technological advances that have come before—the internet, personal computers, and even calculators—it's essential that our students understand both the benefits and the limitations of these technologies. It's likely that many future careers, in a range of professions, will require an understanding of how AI works and the ability to maximize it. In speaking to colleagues during a recent professional development session, computer science teacher Douglas Kiang offered this analogy: if Menlo is aiming to educate the next generation of great chefs, we need to teach them how to cook first. We need to start by teaching recipes and developing their knowledge of ingredients and techniques. As they grow and learn, we help them build on this foundation by empowering them to take on larger challenges, incorporate their own ideas, take risks, and experiment so they can create original concoctions they are proud they made on their own. It's often through this process of creation, iteration, and refinement that intellectual resilience is strengthened and true joy and love of learning are fostered.

We also think it will be important for students to understand the deficiencies of these technologies. For example, Douglas challenged ChatGPT3 to generate questions for the Advanced Topics in Computer Science course. He found that 50 percent of the questions it provided were accurate, usable questions, and yet 25 percent had major issues. Helping our students understand limitations—such as misinformation, content bias, and lack of diverse perspectives—will be increasingly important. Accordingly, our teachers are thinking about ways students can challenge the bot and think critically about what it's generating. What's missing? What perspectives are overlooked? What can be expanded upon? And, how is it using and building on existing information? As AI becomes integrated nearly everywhere, we seek to put our students in a powerful position to grapple with these questions.

Some of the most cited critical observations of this technology argue that AI's output is generic, lacking the depth and originality of thought that comes from a lived experience. For this reason, the characteristics that make us uniquely human will be even more important. Columnist David Brooks recently wrote in *The New York Times* that students should "major in being human." He recommends avoiding classes that teach you "to think in an impersonal, linear, generalized kind of way—the kind of thinking AI will crush you at. On the other hand, you probably want to gravitate toward any class, in the sciences or the humanities, that will help you develop distinctly human skills," which he outlines as empathy, creativity, a distinct personal voice, and unique world views, among others. At Menlo, these are among our core values, and teaching them across our curriculum is—and always has been—what we do best.

As Brooks so aptly concludes, "AI will force us humans to double down on those talents and skills that only humans possess. The most important thing about AI may be that it shows us what it can't do, and so reveals who we are and what we have to offer."

The human connection and collaboration that happen at Menlo between our curious, kind students and our dynamic, caring teachers, the relationships that are fostered here, and the growth and learning that organically stem from them have long been foundational strengths that can't be replaced by technological advances. That said, we are optimistic that, with thought and care, we can embrace the best of what these innovations offer and use them in ways that make us better at fulfilling our mission to be a relevant school that prepares students to make a positive impact in a rapidly evolving world.

Sincerely,

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