

# What is vibe coding, and how does it help non-coders?

When it comes to non-programmers, vibe coding can be a fun way to generate code for personal projects without formally learning the more technical parts of the skill

Sahana Venugopal

## The story so far:

In February, OpenAI co-founder and former Tesla employee Andrej Karpathy described a coding process by which he commanded a Large Language Model (LLM) to generate code. He ran the results, copy-pasted content, and let the system figure out errors so he could surrender to the “vibes” of coding instead of actually focusing on the highly technical details of code creation. “There’s a new kind of coding I call ‘vibe coding’, where you fully give in to the vibes, embrace exponentials, and forget that the code even exists. It’s possible because the LLMs (e.g. Cursor Composer w [sic] Sonnet) are getting too good,” Mr. Karpathy posted on X. And so, “vibe coding” was coined. The term has taken on a life of its own after AI companies released a series of new models designed to help users generate code, even if they don’t know coding.

## How does vibe coding work?

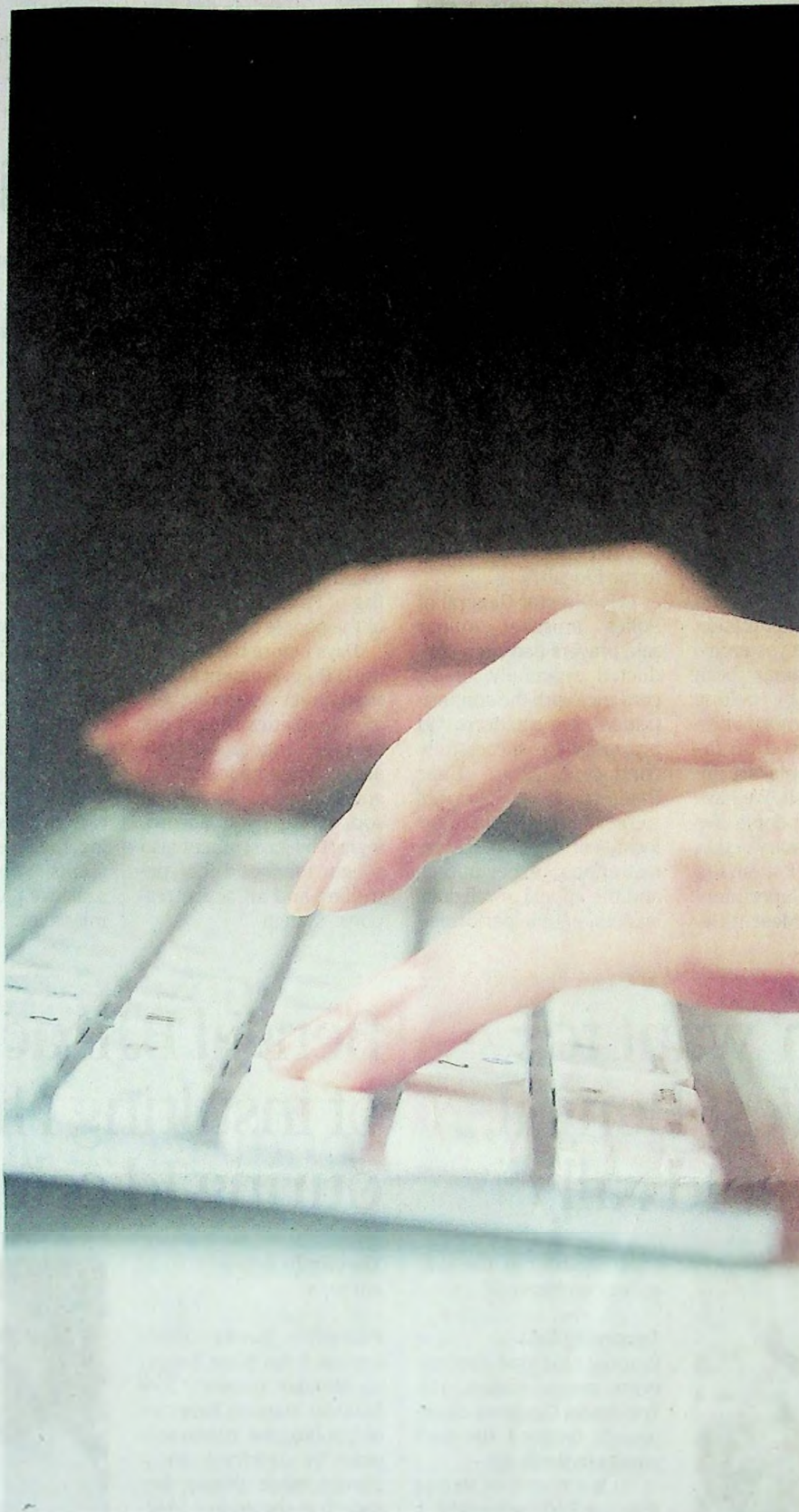
Think of a digital tool you would like to build, or a virtual task you might like to carry out, like building an AI model that helps you learn a new language, developing an app to remind you to drink water every hour, designing a personal website with an attractive video playing in the background, or even alphabetising a list of 500 names in an Excel sheet. To a non-coder, these are daunting tasks. One may need to hire experts, carry out extensive research independently, look for workarounds that do not involve coding, or even just bite the bullet and learn how to code. With generative AI tools, users can now build an app by typing text prompts describing the kind of code they want. All they have to do is simply copy and paste the code to get the desired output. But the outcome isn’t always what one expected.

For example, we asked an AI tool to generate Javascript code for a pop-up that would ask users which pizza flavour they hated the most, and praise the user’s “good taste” if their answer included the term “pineapple” anywhere. While the code for this request was successfully generated, the AI tool added some extra code so that the system would comment “Interesting choice!” to users who provided other pizza flavours. This was something the original user forgot to consider.

Though a beginner can run such codes, they will have no idea whether the code generated by AI could be shorter, more efficient, or tweaked to be more user-friendly. In essence, we ran the AI-generated code, but neither created nor thought about its structure.

## What are advantages of vibe coding?

When it comes to non-programmers, vibe coding can be a fun way to generate code for personal projects without formally learning the more technical parts of the skill. Vibe coding is also an option for those who dislike the coding process but require it for low-stakes projects and low-risk tasks. Vibe coding can expose newbies to a dizzying range of computer languages, coding methodologies, technical uses, and problem-solving approaches in order to ignite their interest in learning how to code the



GETTY IMAGES

traditional way.

For programmers who have a basic idea of what to do, vibe coding can help complete simple projects, identify basic errors, or implement quick bug fixes to speed up the development process. Again, this applies to low-stakes scenarios where any coding mistakes and omissions will not lead to catastrophic consequences.

In the case of experts and highly trained software developers, vibe coding can be used in conjunction with traditional coding methods in order to channel one’s time or energy into those tasks that require the most intervention, so that minor or more generic parts of the workflow are handled by the machine. Mr. Karpathy himself noted that

generating code with AI was “not too bad for throwaway weekend projects.” He shared a basic game and a small AI assistant/reading guide that he built when vibe coding.

## What are the disadvantages?

Vibe coding becomes a major problem as well as a massive security risk when it is seen as a way to replace experienced human coders with amateurs or untrained coders who give orders to AI chatbots instead of coding from scratch or understanding existing codebases.

This is because no code exists in a vacuum. Enterprise-level codes are painstakingly written and stress-tested to serve specific business, medical, educational, scientific, or technological

needs. While human project managers and coders can precisely frame how the code needs to take shape in order to best serve a specific use case, an AI code generator may not understand the larger context of what it is creating. In other words, a gen AI tool may indeed produce the code that the user requested, but this generated code might be too slow to run, too expensive to maintain, and too long to scan regularly for security risks. This will require further fixes and customisation in the future, either by the AI model or even a human.

Mr. Karpathy himself noted that AI-generated code “grows beyond my usual comprehension, I’d have to really read through it for a while.” Similarly, a product such as an app or a website that relies on huge banks of AI-generated code created with just “vibes” will be harder – and more expensive – for humans to maintain and upgrade at periodic intervals. Though experienced users like Mr. Karpathy can review their AI-generated code, spot errors, shorten it, plug security vulnerabilities, increase speeds, edit the text prompts, or carry out other advanced processes, untrained vibe coders will not be able to make sense of the letters, numbers, and symbols in the code.

Another major disadvantage of AI-generated code is that it is difficult to hold someone responsible when there are incidents such as major bugs or security exploits.

On a separate note, the very idea of AI-generated code may be abhorrent to those who see coding as a creative art form. This is similar to the way many creators object to AI-generated stories, music, or art. Other critics have claimed that vibe coders are simply copying or scraping older codes generated by other humans, raising ethical and plagiarism concerns when such machine-generated code is used in competitions, hackathons, job applications, or funding ventures.

## Will vibe coding replace traditional coding?

This is highly unlikely. AI coding tools are still highly experimental at this point in time. Though machine-generated code is being used to build everything from apps to AI models, their generators are still prone to making mistakes or producing unwieldy code due to a lack of context regarding why the code is being generated. Furthermore, it is exceedingly reckless to turn over your entire database to an LLM just to give it more context for basic code generation. However, AI coding tools are rapidly improving, with offerings like Cursor considering the user’s context and their coding style.

The essence of vibe coding is that the coder is not engaging seriously with their results and lacks line-by-line comprehension of their own code. While such a half-baked approach may work out for playful apps or games meant for personal use, businesses and enterprises that serve real users need their code to be coherent to those who make it and manage it. Mr. Karpathy himself noted that vibe coding had an element of laziness and involved making low-intelligence queries. “I ask for the dumbest things like “decrease the padding on the sidebar by half” because I’m too lazy to find it. I “Accept All” always, I don’t read the diffs anymore. When I get error messages I just copy paste them in with no comment, usually that fixes it,” he had posted on X.

It is not likely that well-established or well-funded companies would allow their products to be built in such a shoddy fashion. Vibe coders also cannot compete with professional human coders who leverage AI coding in a skilled manner. But as an increasing number of codebases become AI-generated, it is high time to scrutinise the viability of vibe coding.