

GBH NEWS

Computers Gave Us The Word Multitasking, But Can We Actually Do It?



Sorbetto/Getty Images

By **Edgar B. Herwick III**

February 3, 2021

In an early-January interview with NPR, now Vice President Kamala Harris addressed how the new Biden administration planned to juggle its numerous priorities as they got underway.

"We know how to multitask," she said, chuckling. "There's a reason that word exists in the English language."

That turn of phrase got us here at GBH's Curiosity Desk wondering what *is* the reason that word found its way into the English language, and whether its origins might hold some clues as to how we might better operate in an age of countless demands and distractions.

"We adopt new words when we need new words; that is to say, when we have new things to describe," said Peter Sokolowski, editor-at-large for Springfield-based Merriam-Webster dictionary.

In the case of the word multitasking, that need arose not all that long ago — at the dawn of the digital age.

"Multitasking [is] from the mid-1960s meaning, the concurrent performance of several jobs by a computer," said Sokolowski. "So, the fact is it started with computers and kind of loosened and became figurative, as so many words do."

There are numerous examples of this. The new steam-powered engines of the mid-1800's gave us the term "full steam ahead," which once referred to a very specific function of those engines. Factories powered by complex and novel machines gave us the word "downtime" in the 1940s, which once referred specifically to periods between shifts when the machinery would be powered down, but now more commonly describes those brief, relaxing moments between Zoom meetings.

As for the word multitasking — even in its original, literal sense — it's something of a misnomer, said computer engineer and Boston University Professor Roscoe Giles.

"[Multitasking] amounts, in layman's terms, to the computer working on more than one task — seemingly — at the same time.

Seemingly.

Computer processors can actually only do one thing at a time. They just do things imperceptibly fast. So while your computer is, for example, streaming audio, downloading emails and calculating a spreadsheet without missing a beat, its multitasking processors are actually bouncing back and forth among all three jobs.

"It's moving blindingly quickly between tasks," said Giles. "From a few steps on this task to a few steps on that task to a few steps on another."

It turns out, that's a pretty apt description of what we do when we multitask, said MIT neuroscientist Earl Miller.

"You can only think of a very small bit of information, one train of thought at a time," he explained. "So when you think you're multitasking, what you're actually doing is task switching. You're switching back and forth."

But there is a critical difference between a computer and the human brain. By switching among tasks, a computer is able to find efficiencies — and operate faster. But when it comes to you and me, Miller said study after study has shown the opposite.

"The result is you have decreased productivity, increased mistakes, and a decrease of quality of thought," he said.

Miller said that goes for any combination of tasks that requires conscious attention, like texting and driving or monitoring emails while you are in a meeting.

Miller said that the brain is simply not built to multitask and that nobody is actually good at it, though some are slightly better at it than others. And if you think you are among the better few, Miller has some bad news for you.

"It turns out there's an inverse correlation," he said. "People who think they're better at multitasking are actually worse at it."

As for why, Miller said it comes down to something the brain is quite skilled at.

"Their brain rationalizes it," he said. "[They] delude themselves into thinking they are good at doing something that they're not because they're making an excuse for why they do it. And if there is one thing we've learned, it's that the brain is very good at deluding itself."