



Artificial Intelligence— Should Accounting Fear or Embrace It?

BY SIMON WORSFOLD

A few months ago, I purchased a Google Nest. This came after a friend gifted my family a couple of “Hue bulbs”—the kind that link up to an app on your phone so you can turn the lights in your house on and off without leaving the couch.

The “Nest” is different from every other gadget in my home. Unlike our new Hue bulbs or even our old thermostat, it learns. It knows when my wife and I have left the house and can turn down the temperature accordingly. It lights up when we walk past and can tell us what temperature to set based on what’s most economical. And as time goes on, it will learn our habits and schedules and be able to adjust itself based on what it knows to be true.

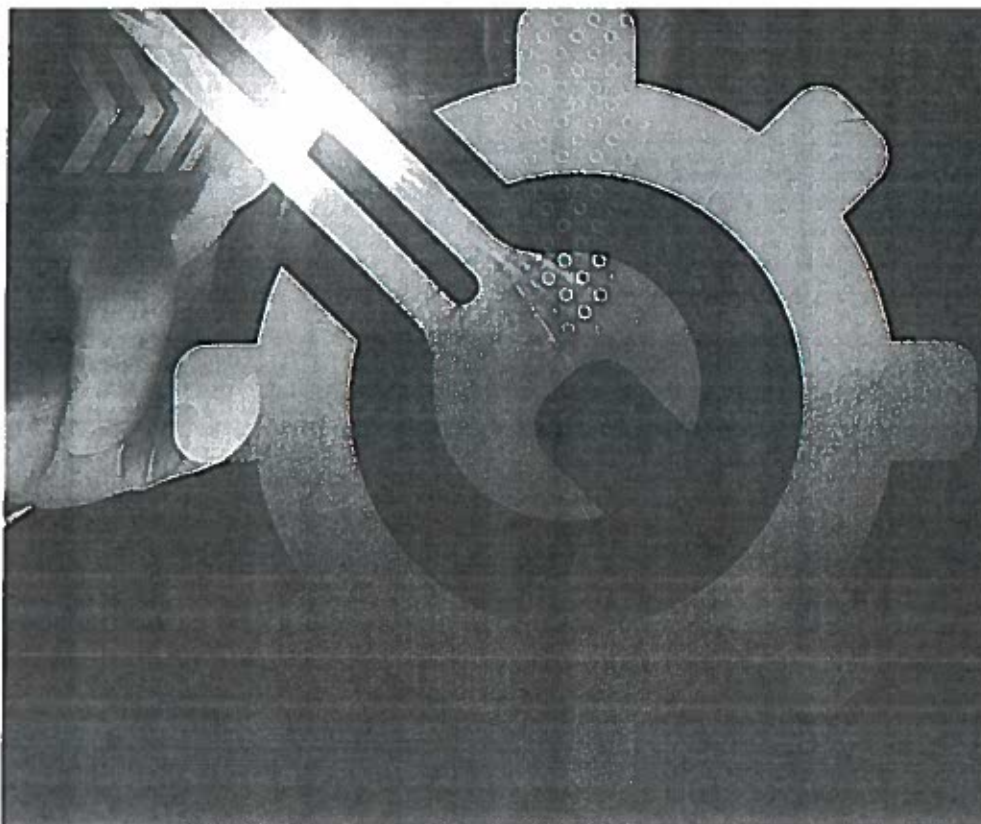
Artificial intelligence, or AI, isn’t just the way of the future—it’s the way of the present. And not just for household items. Nick Chandi, CEO of SlickPie Accounting Software, writes on Forbes.com, “Bots are now able to determine and categorize all information into different accounts by themselves, which means artificial intelligence is already delivering solo performances in the (accounting) field.”

Chandi believes this is a positive for accountants, mostly because it simplifies their jobs and to-do lists. For example, “If you have a monthly subscription phone bill and a purchased phone bill coming from the same phone carrier, the bots will automatically understand that they have different natures and will set them under different charts of accounts,” he writes.

Over the last couple of years, the company I work for has covered the topic of AI in accounting in detail. We’ve commissioned surveys to better understand how people feel about AI in the accounting industry and whether they’re more likely to trust a person or a robot with their data.

Part of the reasoning behind our research was that we wanted to better understand people’s fears and their likelihood of turning to

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When it comes to AI and accounting, the robots are already here, not to eliminate productivity but to enhance it.

a computer over a person. AI, like many acronyms, is often poorly understood. Although fascinating, it can also inspire feelings of discomfort or unrest. Even those who acknowledge the positives might be afraid that someday their jobs could be obsolete. But is that fear justified? Could a robot ever replace a trusted human accountant?

Triumphs, Pitfalls of AI in Accounting

According to our most recent survey on AI and accounting (which involved Canadian rather than U.S. business owners), the answer is no. While 54% of respondents said they'd choose AI accounting software over an accountant if it were cheaper, the other 46% said they would never give up their financial advisor, even if it saved them money.

Similarly, 41% of the respondents said an accountant would always give the best financial advice for their business, as opposed to just 22% who said the same thing about AI. Another 29% fell somewhere in the middle, preferring a combination of the two.

Of course, these responses are based on current accounting software and AI capabilities, and it's likely these tools, 10 years from now, will be far more advanced than they are today. Still, that last group of respondents may be the most informed when it comes to understanding how accountants work. Most already incorporate some amount of AI in their calculations, whether they know it or not.

Misty Megia, one of 2015's "Most Powerful Woman in Accounting," according to *CPA Practice Advisor*, says her life as a business owner became infinitely easier once she started to embrace today's accountant-focused technology.

"I love products that eliminate manual data entry," says Megia, also Head of Accounting Programs and Education Strategy at TSheets. "No matter how fast you are at the 10-key,

it's always nice to have more time to evaluate the numbers and talk to your clients about opportunities to become more profitable. Or, heck, use that time to work on your own company's strategy for growth!"

She recommends that accountants who haven't switched over start by addressing their time-wasters.

"The tasks you don't like doing," she says, "the things that keep you late at the office ... find a way to automate them using a vetted solution. Write your process down from beginning to end, and look for opportunities for automation. You'd be surprised how much of your day-to-day work can be automated. Then, vet your solutions and determine your tech stack to streamline your overall processes, from onboarding clients to monthly reconciliations and marketing automation."

A World That Works Smarter, Not Harder

In Megia's world, technology is a partner, not a threat. She knows from TSheets' research that 80% of the business owners surveyed believe automation frees them up to get more work done. She knows 66% of them are already using AI to streamline their business. And she knows just 1% are worried a computer will take their job.

"Do I think AI will replace the hard-working men and women in the accounting profession any time soon?" she asked. "No. Do I think it's a huge advantage to the profession and will enable them to grow their practices in exponential ways? Yes."

The fact is that AI, as it stands now, can make its human counterparts more productive, just as the stocking frame did for textile workers in 19th-century England and mobile technology has done for just about every industry around the world over the past decade. What it can't do is completely erase the need for human expertise.

Think about the grammar-fixing software tool Grammarly. Billed as “an online grammar checking, spell checking, and plagiarism detection platform,” this tool is a huge help to folks who have a tough time remembering the difference between then and than or there, their, and they’re. Many who use it tout it as a saving grace.

But for all of its capabilities and learning, Grammarly is not an editor. It’s far from ready to replace a person who knows the language not just on an academic level but on a cultural, down-to-the-bones human level. For instance, Grammarly might suggest a synonym for a word that is completely out of context. It can’t give suggestions for better titles or turn a writer on to another source that might be more fitting for the topic they’re discussing.

Here’s another example:

Have you ever been asked to prove you’re a human and not a robot by telling a CAPTCHA form which photos include particular images, such as traffic lights or storefronts? If so, you’ve not only witnessed machine learning firsthand but contributed to it.

CAPTCHA stands for “Completely Automated Public Turing test to tell Computers and Humans Apart.” As the same suggests, it was originally developed to distinguish humans from bots, but the software is now harnessing us humans to help it distinguish one image from another. It is learning what only we can teach.

Jonathan Strickland, a writer for *HowStuffWorks*, says, “Computers lack the sophistication that human beings have when it comes to processing visual data. We can look at an image and pick out patterns more easily than a computer. The human mind sometimes perceives patterns even when none exist, a quirk we call pareidolia.”

For all of the incredible achievements in this field in recent years, AI still has a long way to go before it can compete with the power of our neurons and synapses.

AI: Defining the Inevitable

Merriam-Webster defines artificial intelligence as “the capability of a machine to imitate intelligent human behavior.” Futurism.com, a media company based in, CPP, actually takes this definition one step further by examining the layers of artificial intelligence.

“Artificial intelligence (AI) is the general field that covers everything that has anything to do with imbuing machines with ‘intelligence,’ with the goal of emulating a human being’s unique reasoning faculties,” writes author Cecille De Jesus.

De Jesus writes that machine learning is just the first layer of AI, explaining that machine learning occurs

through “algorithms that discover patterns and generate insights from the data they are exposed to.” This allows them to make decisions in future situations, sidestepping the need for someone to program the machine for every possible action.

The next step on the ladder is called deep learning. This is the most advanced form of machine learning, where machines are designed to “learn and think as much like humans as possible.”

Telling the difference between machine learning and deep learning can be a little tricky, but here’s an example: Twitter employs machine learning to help its users in a variety of ways. Its algorithms suggest people you might know, based on your current friends or connections. These algorithms can also show you certain events trending in the news that might be relevant to you, based on your past actions, which it identifies as patterns.

But Twitter has also been an example of deep learning gone wrong. Back in 2016, Microsoft made AI history by allowing its chatbot “Tay” to “learn” from other people’s tweets and then create its own, based on the information it gleaned from public data. What started as friendly banter quickly turned sour when the chatbot began making racist, sexist, offensive remarks, seemingly “learned” through its human interactions.

Fortunately, accounting’s forays into AI haven’t been so inflammatory. Think software tools that keep track of your business’s earnings and expenses and configure all of that information for you, so you’re not entering every number by hand when filing tax returns. This and other software make an accountant’s job less time-consuming, providing suggestions for how business owners can save money based on their previous experiences.

There’s No Need to Fear, AI Is Already Here

Whether you look at the technology itself or the opinions of business owners who might use it, it’s clear that accountants—specifically those who provide financial advice—are in no danger of being replaced by the bots of today. They can use AI to extract and compile key numbers or check for accounting errors, but that all-important human element would be missing, and sorely missed, if business owners relied purely on algorithms for advice. Perhaps that’s why everyone from *Forbes* to *CPA Practice Advisor* and the *Journal of Accountancy* all say there’s no need to fear. When it comes to AI and accounting, the robots are already here, not to eliminate productivity but to enhance it. ■

