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Artificial Intelligence and its Positive Impact on the Accounting Profession

Sage examines the rate of progress of artificial intelligence and what positive impacts it can have on the accounting profession through machine-learning and chatbots.

Long-predicted by science fiction, there can be little doubt that artificial intelligence (AI) is now making it into the mainstream. In fact, some are saying it's the next evolutionary leap for both our personal and business lives and every bit as profound as the introduction of the personal computer back in the early 1980s, or the Internet explosion of the 1990s.

Although the reality isn't yet robots on every street corner, the rate of progress is certainly steady. Ultimately success is being measured in terms of time saved for us humans when it comes to mundane, everyday tasks that we typically like to avoid – and as we all know, the accountancy industry certainly has its fair share of these.

Machine learning

Machine learning is one of the underlying components of modern AI and describes the ability for computers to essentially program themselves by making their own predictions and decisions based on the data they have already come across.

One example of an everyday accounting task that machine-learning will handle in future is reconciliation and in particular assigning incoming bank statement entries with the correct nominal codes. Ordinarily it takes human intelligence to perform this simple task but machine learning has the ability to emulate the small logical connections.

Thereby the accountant is freed from a time-consuming chore and can then focus on other things – such as becoming the trusted client advisor they've always wanted to be. Here, machine learning would be helping accountants add true value to their services.

In 2016, a Narrative Science survey found that 38% of enterprises were already using A.I. like this to automate manual, repetitive tasks. At the same time, it was predicted this would rise to 62% by the end of this year.

It isn't necessarily that the nature of accounting is going to change because of AI. It's more that, because of AI, certain pro-active aspects of being an accountant will become much more dominant. It's a happy benefit that these aspects, such as becoming a valued advisor for clients, are the ones that drove many people to enter the profession.

But it isn't just about taking care of the boring tasks. Machine learning and AI has the ability to break down the walls between departments of business. For example, AI will be able to understand, predict and model the flow of cash into an organisation so that it can be confident and measured about authorising the flow of money out of it. Problems will be identified early and possibly even before they arise.

AI fears

Needless to say, one doesn't need a crystal ball to realise the introduction of AI might present challenges for people and society. However, according to research undertaken by Sage in the UK*, the fear that AI will take away jobs is largely rejected in the real world. Consumers were perhaps the most doomsday-oriented, with 17.4% of respondents predicting humanity's downfall at the hands of robots. Still, that's less than one in five people.

In fact, a large majority of people surveyed – more than 4 out of every 5 responses – indicated optimism or at least neutrality when it came to AI's potential to make their lives better in the near future. Technology professionals tended to be the most optimistic (32.2%) about the potential to make their lives better, while consumers tended to be more pessimistic (23.2%).

The clearest benefit survey respondents thought AI will deliver is the elimination of the aforementioned repetitive workplace tasks. In fact, this was the most selected response to the question of AI benefits, with almost half (48%) of respondents from the tech community marking the elimination of repetitive tasks as a key benefit – compared to 40.7% of U.S. tech respondents.

If nothing the survey's findings indicate that, despite wariness, at least some consumers understand some of the benefits of workplace AI and that it's breaking through into mainstream consciousness.

Introducing chatbots

On top of machine learning there's another AI technology infiltrating the business world. Chatbots typically come in two forms: scripted bots or sophisticated AI or natural language bots, also known as smart assistants.

Scripted bots are the ones that have been around for a long time – they're easier to build and mostly used for mobile engagement strategies.

However, AI and machine learning is giving smart bots the ability to learn like a human and often to provide a spooky degree of realism.

ING Bank, The Hyatt, Vodafone and FedEx are already all using chatbots to support their customer service requirements. Gartner predicts that by 2019 requests for customer support through mobile messaging apps will exceed customer support by traditional social media and that by 2020, 85% of customer interactions will be with AI.

Sage is behind the world's first accounting chatbot, 'Pegg', an AI virtual assistant designed specifically to help you manage your finances. Pegg can keep a real-time account of your expenses, track incoming payments and automatically balance your books. The more you interact with Pegg, the more intelligent the chatbot will become, adapting to how you work and providing you with recommendations tailored to your business.

However, what's most astonishing about Pegg from an accountant's perspective is how it abandons accounting terminology and concepts. The user has no need to be aware of double-entry bookkeeping, for example or Accounts Payable / Receivable. Their accounting requirements are pared down to just a handful of questions: "How much money do I have?", for example, or, "How much am I owed?"

Chatbots for hire

And it isn't hard to imagine accountancy firms employing similar chatbots themselves, perhaps even in the near future, as a first line of client support. As mentioned above, with its non-accounting-oriented approach and language patterns, a chatbot can literally speak the same language as the client. Imagine questions like this: "Hey accounting bot, how long is it until my VAT returns are due? And does my VAT account match-up with what I've sold this quarter?" And then imagine how, if the answer indicates any discrepancy, the chatbot can flag an accountant to contact the client immediately to discuss better business practices.

In this instance the chatbot hasn't taken work away from the accountant. The client still pays for the same service, after all, but the chatbot has created additional value for the accountant – and in a way that the accountant can use to form genuine and useful bonds with the client.

A knee-jerk reaction is to assume people reject chatbots. Maybe we suspect there'll be a feeling similar to that which came about upon the widespread introduction of call centres, which typically receive negative attention. However, just as the research quoted earlier shows that people are broadly accepting of AI in general, there's also evidence that people actually prefer to use chatbots – especially the up-coming millennial generation who are entering the world of work and starting businesses. As just one indicator, a Retale survey showed that 67% of millennials are likely to purchase products or services using chatbots.

Ultimately, chatbots can be a very efficient route to getting a task done – so what's to dislike?

Challenges ahead

AI is set to challenge not just business practices but also the way we consider technology. In both cases the outcomes can be counter-intuitive and surprising. The best way to enter into a consideration of AI is to keep an open mind and to measure its importance based purely on the real-world benefits that are delivered – which in nearly all cases will be taking care of the low-end work tasks within an accountancy firm and freeing up staff to provide a more personal service for clients.

* Sage, *An AI Reality Check,* 2017