Right Networks®

Emerging Tech Trends

In Accounting

Preparing for the Future of Accounting

As reviewed through time, this is likely to be a fascinating milestone in the evolution of accounting technology and its impact on business. Many working professionals can still remember when technology was burgeoning. From the perspective of accountancy, paper ledgers gave way to spreadsheet applications. CPAs and accounting professionals passed files back and forth from shared drives or emailed them to peers and clients. Then those spreadsheets got more advanced – they were shared in content management systems or stored in the cloud and worked on by multiple people simultaneously. And now applications are becoming transformative in their ability to draw conclusions and anticipate trends based on the information that was once handwritten in books that wouldn't even fit inside a backpack.

The accounting industry isn't exempt or unique in the fact that it's being impacted by a rush of technology advances. Thinking about all of the different ways that technology could impact any industry is as dizzying as it is speculative. It's likely that we haven't fully anticipated the ways that conditions and processes will merge to allow for new things. So how can a CPA firm or accounting professional prepare for a future where technology presents an unknown?

"You can't run an accounting firm in 2017 like you did in 1980 but it amazes me how many people try," said Bill Carlino, Managing Director – Consulting Services for Transition Advisors, LLC. Recently, Carlino was surprised to meet with a managing partner of a CPA firm that didn't have a computer in his office. "Historically, the accounting industry has not been the fastest to adopt change but there have been seminal technology events that have really advanced the pace of change – and the industry is now changing faster."

Some broad technology trends – like cloud computing, big data, 3D printing, cybersecurity, wearable technology, driverless cars, and the Internet of Things – are impacting all businesses. But what will impact CPA firms and accounting professionals? We can safely assume some things.

Working Alone, Together

All businesses are going to have to be more receptive to remote work. It's well-documented and understood that workers today want flexibility in where and how they work. CPA firms and accounting professionals need to have the systems and policies in place to allow for this. Cloud accounting systems are a great start to ensure that records can be shared securely, no matter where the client or the firm is located.

As firms become geographically decentralized and work is shared among virtual offices, it also means that workflow management systems will take on a more critical role. These applications will be increasingly important in giving company leaders a view into the status of projects and client engagements and provide clarity to other employees on outstanding tasks and client actions. As more and more data goes to the cloud, these applications will be critical in forming an understandable workflow from dozens of other systems and applications – like sales data, customer interaction information, financial reports, and contract information.

The Technology Guessing Game

The technology view beyond the next two to three years gets hazier. Artificial Intelligence has been seeping into applications and software platforms at an increasingly steady pace. How AI will impact the industry is a speculative topic in and of itself but as systems' decision-making abilities improve, it's interesting to think about a computer's potential role in evaluating financial and accounting records as part of taxation and valuation.

Probably slightly beyond AI, blockchain technology holds great promise in the accounting profession. A record that is self-auditing and immutable can mean huge changes for not just how much time and effort it takes to verify company financials but drastic reductions to the difficulty and complexity of audits.

Prepare Your Hard Skills (and your budget…)

Fear not, there are initial actions that CPA firms can take to prepare for what's coming. "The first thing to do is get complete partner buy-in," said Carlino. "Everyone has to be onboard with embracing technology and preparing for the future." He added that if a CPA firm or accounting practice has a state-of-the-art technology platform, 4-7% of top-line revenue should still be invested in IT. He anticipates some firms going up to 10% as new technology emerges.

Cloud hosting your accounting system can be a critical first step in providing more security for client data, anywhere-access to business-critical data and applications, and freeing up time from maintaining a specialized IT infrastructure on your own.

"If you are a couple of steps behind," said Carlino, "see what your competitors are doing." He also recommended attending accounting technology-centric conferences as well as reading more accounting technology-focused publications.

Prepare Your Soft Skills

Having a great technology stack isn't going to be of much help if a firm isn't a position to use all that hardware. Now is the time to shore up any skills that will support the applications and systems of tomorrow. Knowledge of data analysis and data modeling will be a key part of standard client support going forward. Accounting professionals should also have at least some awareness of best-practice in IT security so they can do their part in protecting customer data as the sophistication and frequency of data intrusions rises.

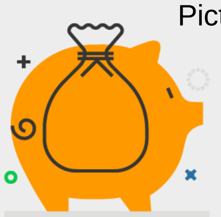
Some industry experts think the right preparation starts with a shift in mindset and not necessarily a change in tools. Salim Omar, Chief Executive Officer of Straight Talk CPAs – a specialized accounting firm, and growth consultant to CPA firms councils his clients to think like CEOs, and not technicians. "Practice owners need to delegate. For so many years, they've done technical work and gotten satisfaction from it," said Omar. "They think, 'I produced this, I got paid' and then they go on to the next thing."

Omar stresses that it's the intangible things like client nurturing and strategic advice to clients that will help a firm see results in six to 12 months and position them for the future. "Firms should utilize technology for better solutions to get the commodity stuff done," he said. Only then can accounting professionals get meaningful time to play the role of trusted adviser.

And just as the role that accounting professionals need to play in the lives of their clients is changing, the role of work in their clients' lives is changing as well. It's increasingly common for companies to shift away from "regular" fulltime employment in favor of contract workers and other "1099" engagements. To supplement, or perhaps to eschew traditional work arrangements, people have engaged with the "gig economy" in increasing numbers.

What Should CPA Firms Do to Prepare for the Shared Economy and E-commerce?

Anytime, anywhere, get something on-demand. That's the implied promise, and holy moly does it sound good. The shared economy, the gig economy, collaborative consumption, peer economy… this potential utopia has many names, but the same concept applies. Consumers access online market places through apps and "borrow" goods or get services they need for a small fee. But shared economy participants often fail to understand the tax and accounting implications of their participation. And few CPA firms are completely prepared to deal with the increasing number of shared economy participants or the sometimes complex circumstances that come along with counseling them or filing taxes on their behalf.



Picture the life of someone fully-immersed in the shared economy. Let's call her Donna Digital. As the alarm clock/mobile phone rings at 6am, she silences the alarm on what will very much be the center of her world that day. She'll hail a car she doesn't own to take it to an office she rents along with dozens of other businesses. Once there, perhaps she uses her computer to cruise a freelance marketplace to connect with hiring managers directly and look for work. Her current employment contract is ending but that graphic design degree she recently completed (paid in part by peer-to-peer lending), has helped to turn up some other paying customers. At lunch, Donna will have her favorite sushi brought by someone on a bicycle. She'll book a stay in a home owner's spare room for her trip to Tahoe next week before doing some work to finish out the day and returning home.

The Promise of the Shared Economy

By using Lyft, WeWork, Upwork, Lending Club, Postmates, and Airbnb in an 8-hour span, Donna still isn't even scratching the service on the shared economy. On-demand offerings have expanded to include everything from borrowing bicycles and tools from neighbors to offering access to your home WIFI network in exchange for the ability to access someone else's when you're traveling.

And there's plenty more "Donnas" out there. An eMarketer survey released earlier this year estimated 56.5 million adults would use the shared economy in 2017. That same study predicts a 53% increase by 2021 in the number of adults that will use the shared economy.

Entrepreneurs don't need to be limited to the availability of outside marketplaces. Anyone with a smartphone and a bit of shopping savvy can create a category for selling. Whether using their own easily created webstore, or building on the backs of giants like Amazon and Walmart, individuals are swarming to e-commerce channels in massive numbers.

Retail e-commerce sales were more than $360B in 2016 and are projected to grow to $638B by 2022. In the Amazon marketplace alone, third-party sellers were responsible for half of all paid units in 2016 – or nearly $23B in revenue. And if 2017 Cyber Monday sales are any indication, the trend will continue. At $6.59B in sales, November 27 was the largest U.S. online shopping day ever.

Problems Individuals Face in the Shared Economy

It's hard not to be enthusiastic about on-demand goods and services. Providing access to unused assets is more affordable than ownership, more convenient in many ways, and better for the environment. Working within the gig platforms is also a great opportunity for some people to supplement their primary income or pay the bills when they are out of work.

But individuals in the shared economy often dive into the work without realizing the tax and legal implications of what they're doing. "Most people get into driving, or get into the shared economy looking to make some extra money," said Harry Campbell. "They don't realize that they're actually running a business. From day one – you're making revenue. That's a business."

Campbell left his job as an aerospace engineer in 2014 to drive for Uber and Lyft and founded his site The Rideshare Guy. Today, in addition to running his site and driving part-time, he consults with drivers to help them form strategies on everything from routes to tax strategies and insurance.

How do you track your expenses? If you use your car for business, do you attempt to deduct standard mileage or your actual vehicle expenses? How do you get the proper insurance for your business model? How do you handle and report on inventory? When accounting for sales, returns, and vendor payments, how do you form a supportive cashflow? Is your business truly profitable or just turning a profit on the items that you sell? Which products are losing you money and which are the most profitable? Those types of questions used to be for business owners to ponder. Now they're faced by individuals who were just looking to run a few errands and collect some extra cash. E-commerce sellers find even more uncertainty and complexity. It's not as easy as firing up your smartphone and making some quick sales.

Problems CPA firms and Accounting Professionals Face in the Shared Economy

Aside from the practical, an individual operating in the shared economy or selling online has a host of tax and finance concerns to go along with all that new opportunity. Scott Scharf should know. He's built a business around helping e-commerce sellers navigate the complexities of the accounting for online selling. Scharf co-founded Catching Clouds with Patti Scharf, to help online businesses solve their business and accounting technology problems. Catching Clouds was founded in 2011 and only focuses on e-commerce sellers. Catching Clouds' clients are all established in the e-commerce industry, with most averaging $1-30 million per year selling online through one to five or more channels.

In addition to their advisory services, Catching Clouds has launched The Catching Clouds Academy, which provides online accounting training for e-commerce sellers and their accountants. The Scharfs blog and speak regularly on the topic of e-commerce accounting, and host a Facebook Community related to accounting and online selling.

Taxes

If there's a component of e-commerce that's likely to cause consternation for a CPA firm, it's taxes. Many online sellers believe that, since they're selling online, they only need to collect sales tax in the state where they're based. In the United States, all merchants – physical or online – are required to collect sales tax from buyers in states where the seller has nexus. Nexus, in this case, represents when a business has a significant presence in that state. A presence might mean that the business has offices, employees, or even just stores inventory there. When an e-commerce seller uses Amazon to fulfill their own online sales within the Amazon website, their inventory can be stored in Amazon-owned warehouses, which establishes a nexus there for the seller.

And the confusion abounds from there. Sales tax laws are extremely varied. If e-commerce sellers even collect sales tax (some don't), the process of registering and filing for sales tax payments, not to mention the tax rates, is different from state to state. Even the timelines for tax payments is wildly different from one state to the next. Sellers that do thousands of sales a month, through multiple channels and with inventory stored throughout the country, can quickly find their tax situation complex and with huge exposure in the event that they don't make the proper payments at the right time.

CPA firms and Accountants – Preparing to Deal with the Shared Economy

Just as individuals are faced with new opportunities, CPA firms and accounting professionals can capitalize on the shared economy with some adaptions to the status quo.

Scott Scharf of Catching Clouds recommends a multi-pronged approach for accounting professionals to begin to prepare themselves for the very high likelihood that they'll begin to encounter more and more questions, if not clients, that are immersed in the shared economy and e-commerce.

1. Know the field
While CPAs don't necessarily need to start driving for Uber on the weekends, it's important to know what's available. You can't anticipate what kinds of accounting and tax concerns a participant might have if you've never even heard of the third-party platform that they're using.

2. Think about ridesharing
While self-driving vehicles might come along and change things drastically, ridesharing platforms aren't going away anytime soon. How would you advise someone who has been driving for Uber but hasn't tracked their mileage for the entire year? How should a driver even track their mileage? Can "gray area" products like trunk organizers and car washes be expensed? These are just some of the questions you'll encounter when dealing with gig economy workers.

3. Review state tax laws for e-commerce
If you have a client that sells online and ships out of warehouses in other states, you will need to determine the tax implications and payment procedures. There are a host of resources available for this, including paid courses. Specialized companies like TaxJar and Avalara also post educational information regularly on their websites.

4. Know the technology
For the "Donna Digitals" of the world, being immersed in several selling and shared economy platforms means that income statements and source data is spread out among different apps and systems. Accounting professionals should be increasingly comfortable in navigating these apps in order to pull together the appropriate income and expense reports. When faced with an e-commerce seller that is operating several storefronts, sales data can be residing in dozens of different places. Solutions like Webgility exist to help CPA firms connect the data from multiple sources but assembling and referencing the right reports and configuring the solutions in the right way still takes some thought.

5. Attend Conferences
Technology issues like dealing with the shared economy or e-commerce are discussed at many conferences and industry events. Browse the attendees and sessions beforehand to target events where these topics are discussed.

6. Visit the IRS's website
The Internal Revenue Service also has resources available to help deal with some of the issues highlighted here.

The One Thing Accounting Professionals Need to Do to Stop Robots From Taking Their Jobs

You're now on your way to helping a new cadre of people navigate the new, new way to work. And work is poised to transform drastically. It's likely that Hollywood, in its aggrandized portrayal of futuristic humanoids, has given us unrealistic expectations of what artificial intelligence (AI) can do for our tools and our society. At least in the short term.

Part of the confusion is that many people aren't aware of the nuances of AI. Some of us have come to expect that by now, we should be serviced in our offices and in our homes by all-knowing semi-sentients. If you're one of the ones that is disappointed at this missed reality, you can look a little deeper for hope. We're surrounded by interesting artificial intelligence use cases (that means you, Siri) that are sure to impact those in the accounting field before too much longer. This is not another alarmist forecast. But change is coming. How much and when is up for a little guesswork and debate.

What is Artificial Intelligence?
AI, in its very broadest sense and goal, is a system that can function independently. We'd hope, in that circumstance, that means the system would also function with at least some level of self-direction.

Within that broad stroke of artificial intelligence, there's degrees to what our systems are capable of. Topbots' Machine Intelligence Continuum breaks that down into systems that Act, Predict, Learn, Create, Relate, Master, and Evolve.

And while there are interesting and useful things happening with AI in the accounting field and beyond, a lot of what the field is currently undergoing is more akin to intelligent automation than true artificial intelligence.

Robotic Process Automation (RPA) – what some call "weak AI" – or the use of software to handle repeatable tasks at a fast rate and high volume, is already impinging on the low-level tasks that, today, are as burdensome as they are boring. Deloitte is in the business of deploying "digital tax helpers" that move data between applications, and extract and compile it from very large data sets. It won't be long before all bank reconciliations, year-end close procedures, order processing, and transaction anomalies for audit (among other things), are relegated to the jobs of other "digital helpers."

What's happening with AI?

There are amazing things happening right now that rely on varying levels of artificial intelligence.

The idea of self-driving cars is not radical. Some conservative predictions call for as many as a quarter of all cars to be self-driving by 2030.

Surely this time of year, some of Amazon's 45,000 robots are clocking overtime picking products from warehouses across 20 of its fulfillment centers.

In the legal field, AI tools already exist to help attorneys find every related precedent to a case and can follow a docket so as to notify an attorney with relevant information when a motion is filed in one of their cases.

And going forward, predications say that AI will do everything from adapting websites for personalized shopping experiences in real time to control robotic limbs after amputations. Speculation is great. And AI is not some kind of pipe dream. But what should accounting professionals and CPA firms realistically do today to prepare for a technology with so much uncertainty, if not promise?

"In the next five years, a lot of mundane processes will get augmented through weak AI," said Professor Ganesan Shankar, Associate Professor in the Technology, Operations and Information Management division at Babson College in Wellesley, MA. "As the weak AI is working, accountants will have to 'train' the systems and do the interpretations of any gray areas that the systems uncover. That will continue for a while until the machines become more intelligent."

From his view as founder and managing director of IntrapriseTechKnowlogies LLC, Donny Shimamoto agrees. "The emerging technologies are actually going to help offset the decline in the pipeline of accounting professionals," said Shimamoto. IntrapriseTechKnowlogies is a specialized CPA firm dedicated to helping small businesses and middle market organizations leverage strategic technologies. “By leveraging automation and artificial intelligence to do the more tedious manual work, accountants can focus on the higher value analysis and extraction of insights that can help improve the performance of their clients.”

What should accounting professionals do about AI?

There are varying opinions on the impact of AI not just to the accounting industry but to business overall. And there’s no shortage of ideas on how we can prepare the next generation for the coming changes that AI will bring. We can encourage our kids to pursue STEM and programming endeavors or foster their interests across a range of skills and hobbies that they might have.

But from a practical sense, the basic blueprint for artificial intelligence preparation should look a little like the following.

Understand and apply

What’s the difference between Machine Learning, Artificial Intelligence, and Robotic Process Automation? Don’t believe the hype on how AI is coming for every job. At least not in the short term. But that doesn’t mean you should ignore the trend, either. The first step in preparing is to understand the basic level of service that these technologies are providing and think about how that could specifically impact not just your business but your routine tasks. What parts of your business take a lot of time, are at least somewhat repeatable, and are of minimal value to your organization?

“Start with your processes,” said Shimamoto. “You have to have a good understanding of your processes because that’s what will be automated, and you don’t want to automate a bad process.”

Dream a little dream

What would you do if you had more free time? Which strategic direction have you thought about but not had the opportunity to pursue? This is exactly where you should go. When the lower level tasks are automated, there will be no more value in doing repeatable tasks. What should your firm pursue then? Cash flow forecasting? Business coaching? Tax planning? Now is the time to prepare for that day.

Data Data Everywhere…

If artificial intelligence is the jet plane, data is the fuel. The present and the future of AI is rooted in data. And the individuals and industries that will co-exist with AI and get the most from its advances are those that understand data.

As we continue to accumulate more data, we’ll come to further rely on AI to help us wade through it. We’ll continue capturing more data at a faster rate, and our AI systems will get even smarter and better. That doesn’t mean you need to learn to code. “Train yourself to work with these systems – as a consultant to the system – rather than the person doing the mundane work.” said Shankar. AI, at least in the short term, is propelled by data. In the future, it will be propelled by human abilities to interpret the machine’s interpretation of the data that we helped create. So why not start at what’s going to be the source?

While RPA and AI systems are getting better all the time, most still rely on oversight from trained individuals. Embracing the future means positioning yourself to “oversee” these systems – which at least partially means being proficient with data. Create it, store it, bring it together, interpret it, manipulate it – data, data, data. “If you improve your data management skills, it makes you stronger as a person who can govern the process and not worry about the execution,” said Shankar.

The second great frontier of artificial intelligence is likely to be unstructured data. This is where machines begin to interpret and make use of the data that isn't housed in spreadsheets. That means extrapolating data from everything from sales orders to customer comments on social media. There's still plenty of room to get in on the ground floor of analytics and data manipulation.

AI is coming

Artificial intelligence is coming. It won't run unchecked into your business and take over. There are natural roadblocks in consumer trust – and where AI is helping with audit and other regulated tasks, regulatory acceptance. Not to mention convincing your clients that a tax return prepared with no human oversight isn't going to lead to a tax payment disaster or an audit.

Shimamoto sees the role of an accounting professional changing back to one of decision support in the future, and shifting away from the transactional work. "The primary purpose will be to help people understand and make sense of all this complexity and uncertainty and to help them figure out what is the best decision for them based on their goals."

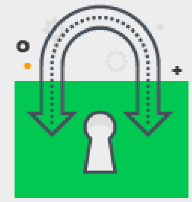
What You Should Know About Blockchain (If You Don't Know a lot About Blockchain)

Don't feel bad if you don't know your Bitcoins from your blockchains from your AI. You're not alone. The news has been moving at warp speed reporting on the value of Bitcoin. It can be hard to pull out any fundamental knowledge, other than the feeling that you might be very wealthy today if you had understood (or even heard of) Bitcoin two years ago.

CPA firms, accounting professionals, and small businesses should know one thing about Bitcoin: Bitcoin is not the same as blockchain. Blockchain is the underlying digital ledger system that supports the Bitcoin cryptocurrency. The promise for both blockchain and Bitcoin is great. But those that first start researching and following this space tend to conflate Bitcoin and blockchain, and that would be overlooking the potential that blockchain has for accounting, and for business, as we know it today.

What You Should Know about Bitcoin

Bitcoin is a digital store of value. Think of it like digital dollars. Bitcoin is the most well-known cryptocurrency but it's not alone. Others like Litecoin, Ethereum, and Zcash exist. They're all similar in that, unlike traditional currency, they're not backed by any physical asset or the promise of any government. Which at least partially explains the extreme volatility of their value.



Bitcoin can be purchased in online currency exchanges. Coinbase, the largest of the exchanges, has more than 10 million users. These platforms provide "wallets" to store your cryptocurrencies, much like a bank account. Bitcoin is rooted in blockchain technology. When a Bitcoin changes hands, the transaction is recorded in a ledger. That ledger is spread across many systems – known as "nodes." Every 10 minutes, people who own the nodes help to verify the transaction. These people (and their systems) are called "miners." Miners make sure everything looks ok with a transaction by solving complex math problems. Once the block checks out, it's added to the shared ledger, forming a chain of blocks. As a reward/incentive to do more mining, the miner gets compensated in Bitcoin.

Forget Everything You Know About Bitcoin

That is, of course, a simplification of Bitcoin and the mining process. There are many great resources out there if you're interested in learning more about Bitcoin, blockchain and other cryptocurrencies.

But Bitcoin's impact on the accounting field isn't quite as correlated or reflective of the same potential as it's backing technology – blockchain. Digital currency would disrupt accounting and every other sector with it. But blockchain technology has the potential to truly change the way accounting is done and the way accounting professionals do their jobs, and potentially on a faster timeline than cryptocurrency. So if you're a CPA firm or accounting professional, you'd be well suited to study blockchain rather than get swept up in the (albeit interesting) swell of Bitcoin speculation.

Blockchain and Accounting

If you're wondering what blockchain can do for an industry, ask yourself about the possibilities that would come about from a set of records that couldn't be altered and weren't impacted by time. What might first come to mind, from an accounting perspective, is audit. Hywel Ball, UK head of audit at EY points out in this article that in, essence, auditing comes down to having multiple ledgers that need to reconcile against each other. Since each participant in a blockchain has access to the ledger and can see it simultaneously, there's no need for a central authority. That could lead to far less complex transaction analysis, less complicated record checks, and little or no cooperation needed from anyone outside the organization. Also, the data is stored in ledgers that are continually updated, so external auditors could have access to real-time reporting.

Though audit is a natural fit for blockchain, it likely won't end there. "We'll see a shift to 'smart' contracts," said Amanda Wilkie. "Publishing contracts on a blockchain means that participants in the chain can see when terms and conditions are met or when outside conditions trigger something in that contract. As an accountant, if those contracts need to be audited – like rental agreements or property records – we have a high level of insight into them." Wilkie, an operations and technology consultant that has held positions in multiple accounting firms ranging from the Top 50 to the Top 10, has been speaking to accounting professionals about blockchain and cryptocurrency for about four years. The first time she presented on the topic, the room was practically empty. Today, her sessions are wall-to-wall crowded. Clearly, people are starting to pay attention to blockchain.

Wilkie's prediction on immediate cryptocurrency and blockchain impact to accounting professionals is unfolding now. "There are CPA firm clients that are looking to accept Bitcoin," said Wilkie. "We need to be able to report cryptocurrencies on tax returns and have them on financial statements. How do we do that type of reporting?" She points out that reporting tools are starting to emerge to solve that problem. Verady, a cryptocurrency accounting and audit technology company, along with a CPA-led advisory firm, announced the launch of a reporting platform to help that firm with auditing one of the world's largest cryptocurrency payment processing companies.

Preparing for Blockchain

What will blockchain mean for you? Probably a lot. But that will depend on your industry and how quickly blockchain can clear any perceived or real regulatory hurdles and acceptance within organizations. Blockchain implementation has to be done willingly between the parties involved, at least initially. If, for example, a major retailer adopts a blockchain network, they could dictate that any of their third-party suppliers need to participate in the blockchain in order to continue business with that retailer.

Wilkie also pointed to proof of concepts that are underway with supply chain logistics and blockchain. One shipping company tried securely sharing shipping data on a blockchain. The results were promising – goods were in transit for far less time and the potential for label tampering while cargo was on the move was mitigated.

In banking, blockchain promises to end delays in transaction verification, settlement periods, and money transfers. Industries that need strong anticounterfeiting measures are starting to rely on blockchain to prove authenticity and origins – like diamonds and wine. There is also great potential in identity management and medical records that we're likely just beginning to uncover.

One thing that's for certain, like AI, blockchain is coming. As an accounting professional, it's up to your creativity and appetite for change to decide how deeply you want to get involved in this early stage. But a great first step would be to disassociate Bitcoin and blockchain in your mind. That alone, puts you slightly ahead of the learning curve.