

# Tech Trends Controllers, CFOs & Accounting Professionals Need to Know

Top Five Technologies That Will Rock—or Wreck—Your World

# Step Up or Step Aside

In literally every sector of our personal and professional lives, technology marches on, and we can either join the parade or get left behind. Even in accounting and finance, perhaps considered some of the more traditional of professions, there's a swift surge of change that as industry pros we can scarcely choose to ignore. But what are the new and popular technology trends in the accounting world and how do they deliver value in terms of faster and more accurate results, both to our own teams and to our broader organizations? In this guide we're going to tackle five technology initiatives that will impact finance and accounting teams and which you need to be nominally aware. Remember, some of these may rock your world (if they're not rockin' it already), and others may simply become the metaphorical Blockbuster video rental store of this decade.

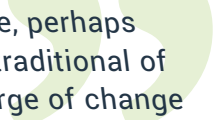
## Technology is Changing Everything—Accounting Included

The pace of technology truly is changing everything, and whether you're a Boomer, Gen Xer, Millennial or one of the "iGeneration," change is part of the cadence of everyday existence. How we shop and pay for goods and services, entertain ourselves and even earn a living has and will continue to evolve rapidly. Let's not forget longstanding professions—think travel agents, bank tellers, department store clerks—where technology has virtually eliminated the need for related human interactions and skills. And so it will be a similar revolution in the world of finance and accounting over the next five to ten years.

In our domain, technology is changing two very important things:

- **The nature of the work that accountants perform is fundamentally shifting**

Technology advances may take their toll on traditional accounting roles, including routine bookkeeping, data entry, and formatting tasks. These are being eliminated, with tedious work replaced by the



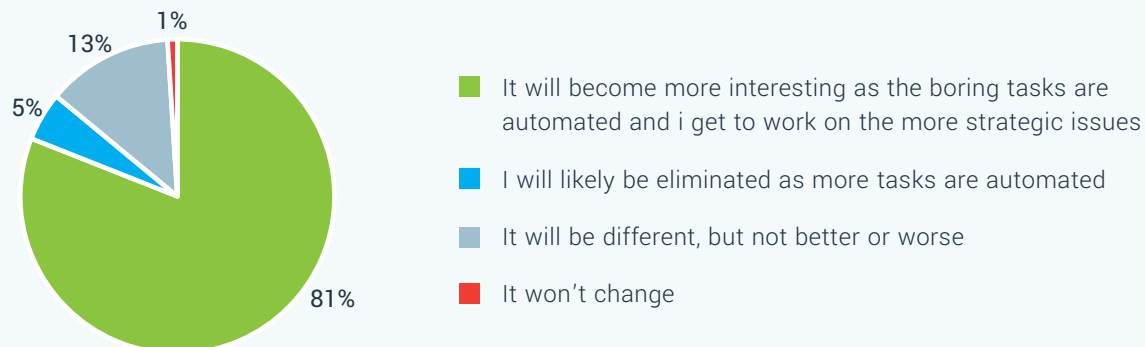
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opportunity for more interesting activities. This will shift the balance of the traditional accounting team itself, reducing the need for clerks and staff and increasing the demand for more senior, highly skilled managers and tech-savvy system implementers. More creative problems solvers will be attracted to new accounting roles, where previously they may have held minimal professional appeal or intellectual challenge. Teams will experience an overall reduction in size but gain a higher reliance on technology and knowledge skills to complete necessary duties.

- **The way accountants work together is also changing**

Unlike the traditional office-centric environment of past generations, new cloud-based technologies enable and facilitate remote work that is just as (or even more) productive than tasks traditionally done in a physical workplace. The cloud has become ubiquitous due to its lower hardware infrastructure cost and ease of implementation and use, with desktop-resident applications now used interchangeably with cloud-based apps in a web browser. It has become simpler for organizations to adopt new task-specific capabilities via a pay-as-you-go, subscription model, with browser-based applications that are user friendly and can help reduce training and adoption hurdles. With these changes come additional team management challenges, requiring a new style of leadership. Instead of focusing on the completion of rote chores, managers must now understand and motivate well trained CPAs and tech pros and embrace a style that inspires rather than directs the entire accounting team.

## How will automation and technology changes impact your job in the next 10 years?



Source: Cloud Technology Advances the Accounting Profession, Dimensional Research, June 2018, survey of 500 finance and accounting professionals

Five technologies for review and discussion here include some that are already in use today, and others whose practical implementation and acceptance have yet to be fully realized. They include:

1. Application Programming Interfaces (APIs)
2. Robotic Process Automation (RPA)
3. Artificial Intelligence (AI)
4. Blockchain
5. Remote Work Enablement

Senior accounting and finance professionals should familiarize themselves with these trends, as they are already having (or have the potential to have) dramatic impact on accounting and business processes, and accounting team composition and needed skills. They also offer innovative ways to leverage technology for your personal and professional advantage, helping all of us to remain relevant and valuable participants in our quickly changing accounting world.

So, for simplicity's sake, let's take each one of these technologies and briefly discuss exactly what it is/does/ or entails, and then dive into why they matter to you as a finance pro.

# Application Programming Interface (APIs)

APIs are the software intermediary that allow a variety of applications (apps) to talk to each other. In essence they are the routines, protocols and tools that facilitate communications between systems, perform backend calculations, and then transparently return results to the requestor. They make interactivity possible—think booking an airline flight or making dinner reservations—

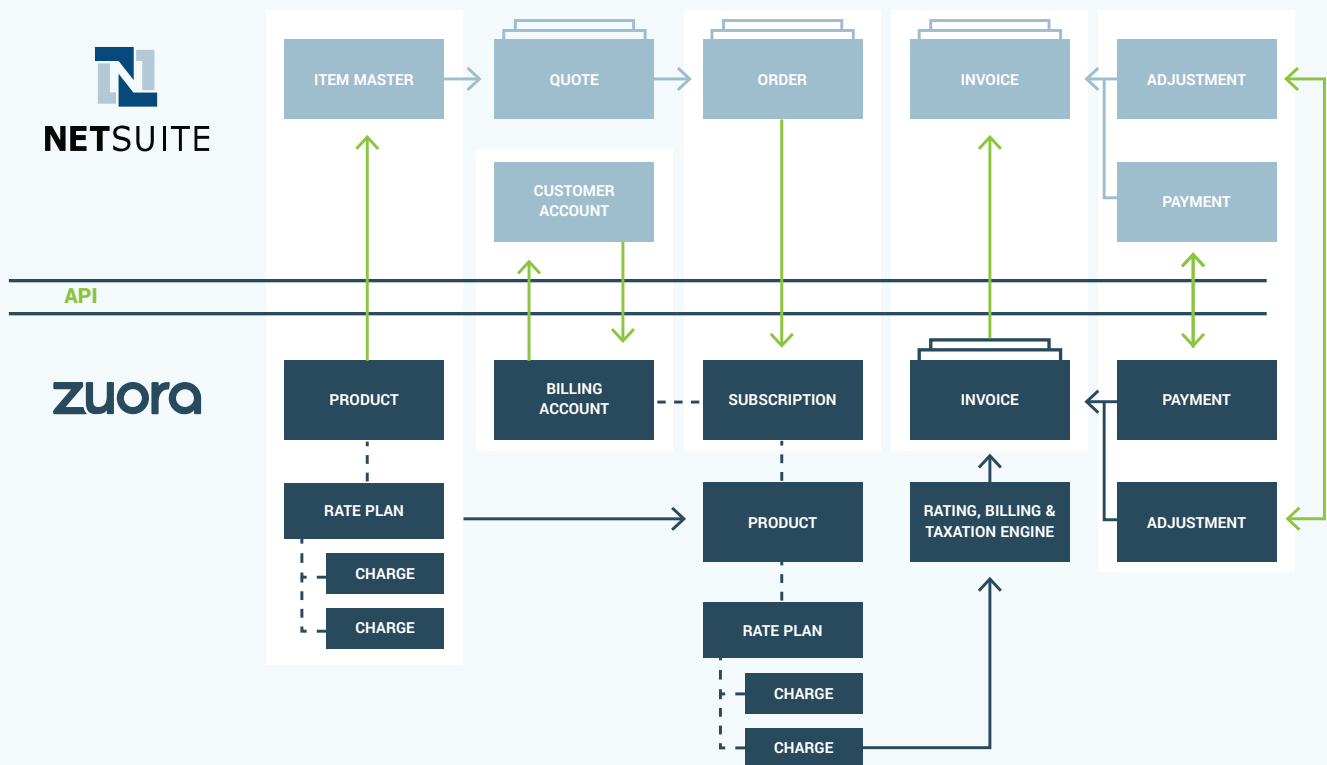
via just a few keystrokes on your laptop or taps on your phone. They eliminate a score of data entry tasks which previously required time consuming manual intervention.

In accounting, open Enterprise Resource Planning (ERP) and General Ledger (GL) systems such as Sage Intacct and Oracle NetSuite can now connect to and access

data from a myriad of vendor approved, cloud-based apps that address specific tasks; these might include functions such as accounts payable, billing, payroll, expense reporting and close management. It's the APIs that have made this new accounting ecosystem possible, have enabled organizations to select and implement the most contextual apps for their needs, and have eliminated the inflexible stacks that formerly dominated financial software implementations.

And why do you as the accounting pro care? The list of what you can accomplish is compelling:

- You can connect systems that contain needed data without keying or re-keying, including access to data residing in legacy systems
- You are able to select and replace embedded functionality with more applicable capabilities
- You can build all new or augment existing ERP systems, depending on precise needs
- You can automate the bulk of time consuming tasks, including receivables, check creation and auto-payments without accounting staff involvement or resource consumption



This diagram shows how Zuora, a cloud-based subscription management tool, integrates with Oracle NetSuite via the API. In this configuration, products in Zuora are synced as Items into NetSuite. Orders in NetSuite are synced to Zuora as Subscriptions. Invoices created in Zuora are synced over to NetSuite, and Payments and Adjustments recorded in either system sync both ways.

# Robotic Process Automation (RPA)

RPA is a maturing form of business process automation which uses web robots, or “bots,” to complete tasks or scripts, accomplishing activities that were typically reliant on humans to perform. They tackle structurally defined and often predictable and recurring tasks, all based on the observation of repeatable human user actions. They are most frequently implemented in a virtualized environment but are often anthropomorphized as a co-worker in relation to their specific capabilities, such as Betty or Bob Bookkeeper who might exist in the physical accounting world.

**Why bother? Repeatable functions that require human skills and their cost can be replaced:.**

- Mundane accounting tasks can be automated, including invoice receipt, data extraction and payment, now all completed by bots
- Normal accounting processes become cheaper and more consistent, with fewer steps and less need for “person power”
- Additional internal application practice automation, including HR apps and employee record keeping, can offer substantial savings

**The net result will be that the demand for the skills necessary to implement leading-edge RPA solutions will escalate, while the reliance on clerical tasks will diminish or even simply disappear.**

- Where it is impractical or too costly to connect applications via APIs, RPA can bridge the gap

Today’s practical application of RPA does, in fact, have a somewhat limited scope of use. Widespread use of RPA technology within firms has so far been limited to Fortune 500 companies and Big Four accounting firms.

The future, however, holds immense opportunity to eliminate repetitive human tasks within small and medium sized organizations, promoting our mortal intellectual capabilities to be focused on more strategic accounting activities, and far less on data entry and bookkeeping chores. The net result will be that the demand for the skills necessary to implement leading-edge RPA solutions will escalate, while the reliance on clerical tasks will diminish or even simply disappear.

# Artificial Intelligence (AI)

AI is intelligence exhibited by a machine vs. natural intelligence, which is characterized by humans and other animals. In the technology world it is composed of machines that can complete cognitive functions most often associated with human functions, including learning and problem solving. These functions are not verbal or human in their action but can complete work or tasks typically considered to involve a person. The machine has no real understanding of the activity

**AI has the potential to add value in its ability to contribute to any situation where human document review has been to date the only viable option.**

but does have an ability to read and parse text and effectively extract data points in order to successfully achieve the predetermined goals.

### What can AI bring to the accounting world?

AI has the potential to add value in its ability to contribute to any situation where human document review has been to date the only viable option. Simply consider the hours currently spent completing the following chores, and that AI could dramatically streamline each process:

- Completing complex advisory and tax service tasks, such as locating eligibility for subsidies
- Performing contract review, including reading and identifying trends, patterns and anomalies and extracting pertinent information such as value, term length and lease agreements

- Augmenting audit activities with higher quality information in a fraction of the time of traditional methods
- Eliminating the tedious matching of documents to GL transactions


AI, also called machine learning, has become prevalent in virtually every industry, with accounting and finance a prime example for its application today, as well as new opportunities for tremendous growth in the future. It can deliver savings in time and cost for document review, and subsequent improvements in consistency, accuracy and speed of review results, all critical components in an accounting world of increasing velocity and scrutiny.

## Blockchain

According to Wikipedia, blockchain is “a continuously growing list of records, called blocks, which are linked and secured using cryptography. It’s an open, distributed ledger that can record transactions between two parties efficiently and in a verifiable and permanent way.” It’s more simply a method to transfer assets between two peers without an intermediary, in an open, secure public database where its users have to agree to make additions or changes. It is not Bitcoin, although it was originally designed to serve as the public transaction ledger of the Bitcoin cryptocurrency. Blockchain has now morphed into a part of a growing list of suitable records management and transaction processing applications.

### What effect does blockchain have on accounting and finance?

Blockchain can potentially automate time consuming manual accounting processes across the supply chain, property ownership, in financial transactions, and with asset ledgers.



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It has the potential to:


- Eliminate fee-based intermediaries like PayPal and title insurance, and potentially even traditional banks
- Become part of accounting infrastructures, with some Big Four firms already implementing blockchain for client billing and for personal use by their staff
- Assume a role in tracking and recording changes in inventory and property ownership across a global economy

And while blockchain is still predominantly a future technology it’s one that is gaining momentum. It really needs a “killer app” to gain traction and acceptance, where new and improved cryptographic implementations become a part of the scope of mainstream consideration, implementation and use.

# Technology and a New-fangled Accounting Work Environment

Let's break this down, as while it may seem it's the most self-explanatory part of this broader technology discussion, it's still a complex issue with many dimensions; and it's perhaps the one where the most urgent—yet immediate—actions can be successfully undertaken. SaaS applications that require just an Internet connection and a browser now proliferate, coupled with enhanced team collaboration and communication tools that contribute to enabling remote work. If you are like most CFOs, controllers and accounting managers, you know the following to be true regarding your staff:

- It's increasingly more difficult to hire and retain talented and dedicated pros—according to a survey commissioned by FloQast and conducted by Dimensional Research, 85% of accounting and finance professionals report difficulty hiring and retaining accounting talent. There's a low accounting unemployment rate, so it's far easier for team members to jump jobs. Unemployment for accountants and auditors dropped below 2 percent in the first quarter of 2018 according to a quarterly report from the U.S. Bureau of Labor Statistics (BLS).
- With Boomers retiring leaving roles unfilled, high demand complicates your recruitment and retention efforts.
- There's a lack of desire by staff to live and commute in expensive and congested geographies.
- There's a growing desire by staff for fluid schedules, whether fully remote, part-time, or on flexible hours. And accounting and finance leaders are taking note—49 percent of companies have changed to provide technology to enable remote work as a way to attract and retain accounting talent.



**The fact remains that more firms and organizational accounting departments are functioning as 100% remotely-populated entities.**

Still, a free-for-all, no holds barred approach to flexible work environments can create as many issues as it might, on the surface, purport to resolve. The subject of many research studies, coupled with a dose of some regular old-fashioned logic, bring us realities that are no surprise:

- Remote workers can often suffer loneliness and poor team comradery and understanding of a broader purpose. According to Buffer's State of Remote Work 2018 report, 21 percent of workers report loneliness as their biggest struggle when working remotely.
- And from the same Buffer report, another 21 percent of remote workers report that "collaborating/communicating" is their biggest challenge. It makes sense intuitively that the absence of face to face communications can result in inferior results and lack of individual responsibility.
- Enablement of multiple work options can add to the cost and complexity of the supporting communications infrastructure, including monthly and annual subscriptions to communications software such as Zoom and Slack.

**What are best practices for you and your accounting team's work environment?**

The fact remains that more firms and organizational accounting departments are functioning as 100% remotely-populated entities. Traditional on premises office paradigms are no longer the norm, and in fact many cost-conscious concerns don't want to acquire



and maintain conventional and expensive physical office space.

And as competition for quality players heightens, the ability to offer working options and scheduling elasticity are no longer perks for only the best and brightest but have become table stakes for hiring and retaining the entire financial team. The largest firms and organizations are the most accommodating, with many who have already discovered across all departments that in the need to fill increasingly technical professional roles, worker location may have become a tertiary requirement at best.

It's the rare organization that has not implemented enabling technologies to keep accounting staff productive whether in a brick and mortar setting, working from home or on the go—or in any combination of these that might arise. These new technologies also empower today's accounting department to staff appropriately, while offering the necessary collaboration

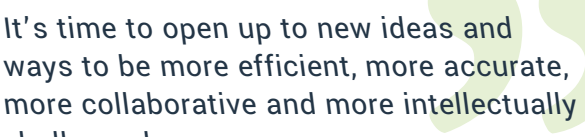
and communications tools to which globally-oriented organizations are accustomed. Some checkmarks for your tech collaboration checklist, which you may have already accomplished:

- Pick the right collaboration and communication tools, some of which may already be in place in your organization in the form of Slack, Microsoft Teams and Google Hangouts Chat—they are all viable options
- Ensure that two-way communication methodologies can be calibrated to the appropriate response level, including the ability to classify issues and responses as critical, severe or standard; this includes all communication vehicles such as embedded app messaging, email and texts
- Include old-fashioned phone calls and face-to-face meetings, where possible, to build and encourage personal relationships and associated accountability and reliability

## And the Tech Tsunami Takeaway

We've covered, albeit briefly, five crucial tech considerations for CFOs, controllers, finance managers and accountants as the tsunami of technology innovation continues to wash over our heretofore well charted (i.e. predictable) accounting shoreline, bringing expanded and even radically new virtual beachheads and deckhands. It's time to open up to new ideas and ways to be more efficient, more accurate, more collaborative and more intellectually challenged:

- Time to learn about, embrace and begin to implement change using leading-edge enabling accounting technologies
- Time to jettison some legacy approaches and add new dimensions to getting the accounting job done faster



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and more competently, and to getting your multi-talented and tech savvy crew solidly in place

- Time to watch and learn from leading accounting firms and organizations who have already taken creative steps to streamline outdated processes and infrastructure



# FloQast Technology Innovation— Here Now, With More to Come

The screenshot displays the FloQast software interface. At the top, there's a navigation bar with tabs: #FloQast, DASHBOARD, CLOSE THE BOOKS, CHECKLIST, RECONCILIATIONS, REVIEW NOTES, and ANALYTICS. Below this, a breadcrumb trail shows 'FloQast Demo > October 2016 > Cash and cash expenses'. On the right, it says 'Locked by James Richman 10/02/16 10:12'.

On the left, there's a sidebar with a search bar 'Search by entity' and a list of entities: FloQast Demo, FloQast Demo UK (selected), FloQast Demo CA, FloQast Demo EU, and FloQast Demo AU. Below these are various accounting categories like '09 Capitalized soft...', '10 Accounts payable', '11 Accrued liabilities', '12 Deferred revenue', '13 SOX', '14 Reporting', '15 Tax', and 'Trial Balance', along with a monthly calendar view from January 2016 to September 2016.

The main content area is divided into two sections:

- Checklist** (4 items): A table with columns: DESCRIPTION, DUE, ASSIGNEES, SIGN-OFF, COMPLETED, and NOTES.
 

DESCRIPTION	DUE	ASSIGNEES	SIGN-OFF	COMPLETED	NOTES
Perform SVB bank reconciliation by agreeing ending balance per ERP to bank statement.	8/18/16	Preparer	<input type="checkbox"/>		
Confirm payment batch	8/18/16	Preparer	<input checked="" type="checkbox"/>	8/24/16	
Perform remeasurement for FS presentation purposes (JEV should auto reverse on the first of next month)	8/18/16	Preparer	<input checked="" type="checkbox"/>		4
	8/18/16	Reviewer	<input type="checkbox"/>	8/24/16	
- Documents** (46 Documents): A table with columns: FILENAME, ACCT.#, PER SOURCE, MODIFIED, and NOTES.
 

FILENAME	ACCT.#	PER SOURCE	MODIFIED	NOTES
Cash Lead Sheet (8-31-16).xlsx	#1000	\$134,918.00	8/18/16	2
#1300 Prepaid Expenses.xlsx	#1005	\$157,992.00	8/09/16	

Among technology innovations, close management software, such as that from FloQast are adding a high-tech component to an age-old accounting problem: effectively closing the books on a monthly, quarterly and annual basis. FloQast does so in a way that tosses out traditional manual exercises and replaces them with a way many forward-thinking accounting teams have already welcomed:

- An innovative way to close the books more quickly, accurately and collaboratively
- The ability to close without time consuming over-communication and last-minute fire drills
- Complete team task visibility and accountability to eliminate the “not me” syndrome

Now one of the newest “must have” technologies in accounting, the FloQast cloud-based close management solution has taken some of the topics we’ve discussed and delivered their benefits to you in a way that’s visionary, simple-to-use, and leverages the best of your existing infrastructure.

## APIs

FloQast uses APIs to connect the FloQast application functionality directly to your open ERP or GL system along with your Excel workbooks and transaction data that’s retained in cloud-based storage. Seamless connectivity enables functional GL updates and reconciliations without requiring changes to workflows leveraging familiar Excel workbooks and trial balance tie-out processes.

### RPA

FloQast helps automate manual processes such as reviews and signoffs, rolling forward reconciliations, automating trial balance tie-outs, collecting review notes, and updating status reports. Our “Cloud Connect” tool leverages RPA to streamline import of trial balance information from Oracle and SAP where APIs are not available.

### Return on Investment

FloQast customers report that the close management software pays for itself in seven months and is typically implemented in two weeks.

### Remote Work

FloQast automates and delivers visibility to the many interrelated close team tasks, responsibilities and progress to completion for total transparency. Regardless of a team’s member geographic location, a login to a single interface enables the entire group to view, track, understand and react to completed and outstanding issues to avoid anyone being caught unaware. It’s truly a flexible work style at its best.

Stack Overflow’s policy is to hire the best candidate for every position, wherever they’re located. So having a completely transparent solution that lets me see who’s done what and when—wherever they may be—is vital.

JERRY RAPHAEL  
Vice President of Finance, Stack Overflow





## About FloQast

FloQast is award-winning close management software, created by accountants for accountants to close faster and more accurately. On average, accounting teams who rely on FloQast close three days faster. Seamlessly integrated with ERPs and leveraging your existing checklists and Excel, FloQast provides a single place to manage the month-end close and gives everyone visibility. The cloud-based software is trusted by hundreds of accounting departments, including those at Door Dash, AdRoll, Indeed, Shopify, Ancestry.com, Twilio, Dollar Shave Club, Zillow and The Golden State Warriors.

Join the conversation on Twitter at [@FloQast](https://twitter.com/FloQast).

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