



**Crunch time**

Finance in a digital world



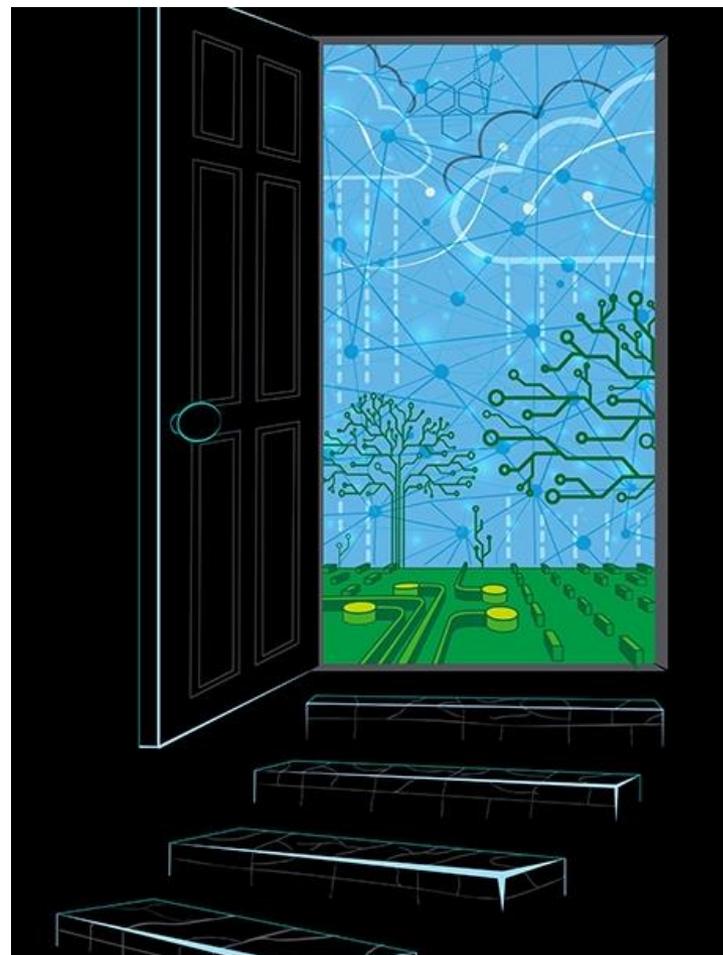
Making another century of impact  
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# Framing the future

A new class of digital tools are reshaping almost every aspect of business:

- Cloud
- Robotics
- Analytics
- Artificial intelligence
- Automation
- ... and more

What do they mean for the future of finance?  
Quite a lot.



# Digital disruption

Finance organizations have lots of experience managing change. But digital represents opportunities we haven't seen before. Opportunities to explore massive amount of information, to do it quickly, and to distribute knowledge wherever it needs to go. These shifts are not only driving operational improvements, they're also changing expectations for adding insight.

**Data volumes are exploding**

**Unstructured is different**

**Finance doesn't have a corner on analysis**

**Business cycles are up for grabs**

**The talent crunch is real**

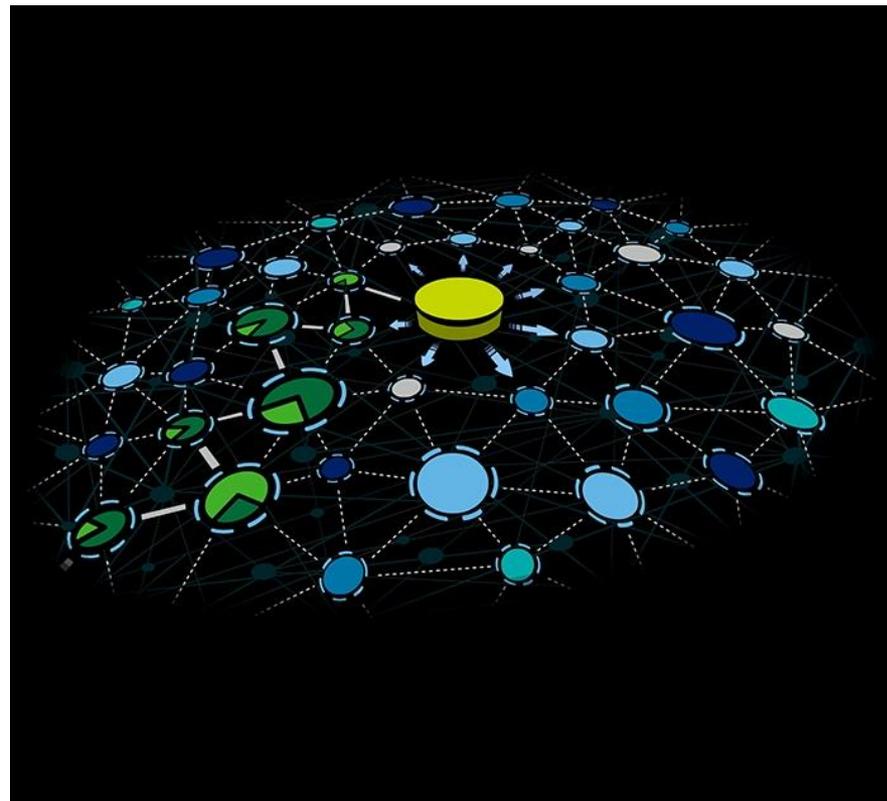
## *CFO perspective*

"All of a sudden, data that was buried in a grave somewhere is coming to life. We have to make sense of it and use it as an asset to serve clients better."

# Start where you are

Established businesses obviously face different technology challenges than companies that grew up digital and each company adopts a different approach to its digital transformation.

**Which path makes sense for you? What kind of roadmap will you need to realize the benefits of digital transformation?**



In the end, companies will need to chart their own courses. But no matter which future you envision, the leaders will likely be those who figure out how to make digital work for finance – and for the whole business too.

# New challenges, new tools

# The Finance Toolset

Seven technologies have growing relevance for how the work of finance gets done.

## Core Modernization

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**Cloud**



**Process  
Robotics**



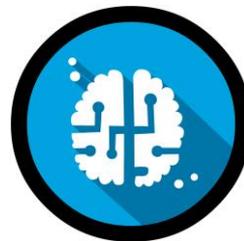
**Visualization**

## Exponentials

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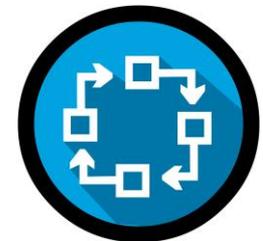
**Advanced  
Analytics**



**Cognitive  
Computing**



**In-Memory  
Computing**



**Blockchain**

# Cloud

## Agility and efficiency with everything-as-a-service



For companies that want flexible, scalable services without incurring large startup costs or technical debt associated with IT architecture and code maintenance, cloud is made to order.

According to Gartner, at least 25% of new core financial application deployments in large enterprises will be cloud software-as-a-service by 2018.

### *CFO perspective*

“Three or four years ago, cloud was a missionary sale. Now it’s mainstream. Most RFPs today have a cloud in the bakeoff.”

### **Crunch time**

While cloud services come with legitimate cyber and security concerns that must be taken seriously, there are also numerous finance applications where cloud simply makes too much sense to ignore.

Top applications for early adoption include:

**Planning**

**Budgeting**

**Forecasting**

**Procurement**

**Expenses**

**Reporting**

**Payroll**

# Process robotics

## Faster, cheaper, better



Robotics and automation have fundamentally reshaped global manufacturing, upending conventional thinking about distribution channels, supply chains, and labor costs.

But that's just the tip of the iceberg. From call center management to inventory tracking to the Internet of Things, and more, innovative applications of automation have been bubbling up in nearly every industry and business function. Even in finance.

According to our research, process robotics is already being used by about 30% of the companies we surveyed.

### *CFO perspective*

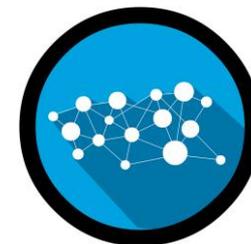
"We have to be ever more efficient. That means driving costs down for transactional services using automation, robotics, and maybe even outsourcing new providers in this space."

### **Crunch time**

There's no need to reinvent the wheel. Many finance organizations have discovered good opportunities to reduce costs and improve productivity through process robotics. Avoid analysis paralysis by choosing a proven application and diving in.

# Visualization

## Making information accessible



Making the leap from raw data to actionable insights is a priority for many enterprises. With human attention spans today running at only eight seconds, we require methods and tools that allow us to more quickly decipher the ever-increasing volume of data available.

Visualization tools can bring analytics solutions to the enterprise faster, enabling rapid prototyping that reduces development time. These tools also allow companies to “see” developing stories that directly address decisions that matter.

Advanced visualization tools have been implemented by nearly 30% of the companies we surveyed, with another 12% reporting they are evaluating or piloting the technologies.

### **Crunch time**

It’s often assumed that visual analytics tools themselves will provide insights out of the box. They generally don’t. Like anything else, finding effective solutions requires sifting through options, experimenting, and then settling on an approach that works for your unique needs.

### *CFO perspective*

“We have to be able to expand the information we provide and have it easily accessible. At the end of the day, that’s the strategic part. The fun part.”

# Advanced Analytics

## Deeper insights, better predictions.



Many companies are already making significant investments in advanced analytics, which have already made their way into the toolset of many finance teams around the world.

As finance organizations work to meet growing expectations for value-added insights, the trend will likely continue, with talent increasingly focused on analysis and interpretation including application of sophisticated algorithms used by data scientists.

About 45% of surveyed CFOs say they have already made investments in finance and accounting analytics, and about 52% say they will invest more in the future. The financial services sector shows highest levels of past investment among respondents, at 64%, with the healthcare sector highest for future investment, at 71%.

### **Crunch time**

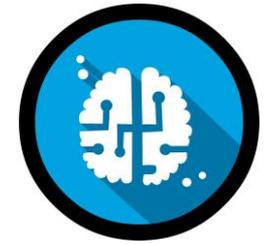
There are lots of way to apply advanced analytics to amplify the strategist and catalyst roles of finance. If you're looking to get started, invest in tools specifically designed to improve forecasting. CFOs tell us it's the place their business colleagues expect the most support.

### *CFO perspective*

“Finance organizations are becoming transformation agents and data scientists, quite frankly.”

# Cognitive computing

## Automating insights



“Cognitive computing” is a general term that covers machine learning, natural language generation, speech recognition, computer vision, and artificial intelligence. Taken together, these tools simulate human cognitive skills, grinding through mountains of data to automate insights and reporting in real time.

Our research shows that cognitive computing and artificial intelligence have been implemented by about 17% of the companies we surveyed. Another 20% say they are piloting the technologies in specific functional areas.”

### *CFO perspective*

“Given the power of analytics, machine learning, and greater sources of data, our role of business partner may evolve to where we’re constantly considering different ways to adapt our business model.”

### **Crunch time**

Natural language science enables companies to read things like contracts and purchase orders – and to tackle them at high volumes without human intervention. In addition, natural language generation can supplement routine reports with narrative commentary using personalized text. These applications are a good place to start.

# In-memory computing

## Manage more information about more transactions



Dealing effectively with digital information requires a technical architecture that can handle massive data sets, without sacrificing availability or timeliness. That's what in-memory technology delivers. Key applications include transaction processing, event processing, distributed caching, and scenario modeling.

Only 10% of CFOs surveyed say they currently use in-memory technologies. But look for that to change over the next few years. The explosion of information streaming in from the Internet of Things alone could make in-memory a critical capability for companies undergoing digital transformation.

### Crunch time

- Where do you need fast access to analyze a high volume of concurrent transactions?
- Where would automated notifications in real-time enable better decision-making?
- Where do you need dynamic big data calculations in milliseconds?

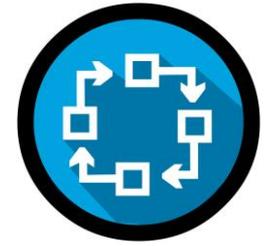
You can't address these in questions without diving deep into data – and in-memory technology enables that to happen.

### *CFO perspective*

“In-memory is one of the most exciting areas for finance because of the possibilities it creates in providing insights for unlocking value from big data.”

# Blockchain

## Building digital trust



Blockchain offers the storage of immutable records of transaction data through distributed networks. They retain the full history of transactions, which makes them verifiable and independently auditable. Blockchain also enables peer-to-peer transfer of value, potentially eliminating the need for intermediaries.

While this technology is gaining momentum, there are still unresolved issues, including risks associated with regulation, control, and security. Only 4% of CFOs surveyed say they use blockchain technologies, and familiarity with the technology appears relatively low.

### **Crunch time**

Wait and see. Developments in blockchain are moving forward steadily, especially in financial services. For example, market forecasts indicate that 80% of the world's largest banks will have initiated blockchain projects by the end of 2016.

Keep an eye on what financial institutions are doing. Current obstacles to blockchain adoption should eventually be resolved, and it will likely be coming your way.

### *CFO perspective*

“Anything I could say about adopting blockchain would be idle speculation at this stage. You can quote me on that.”

# Don't ignore the people puzzle

The growth of digital business is already reshaping the talent marketplace, far beyond finance. As organizations seek to upgrade their workforces in all areas, they are placing a premium on people with relationship and analytical skills, who can also understand the business.

Talent essentials for digital transformation includes:

- **Leadership:** A sharp view to the future and a clear roadmap for getting there
- **Culture:** Less predictability, more experimentation and innovation
- **New skills:** Technology savviness combined with business understanding
- **Engagement:** An opportunity to learn, grow, and innovate for digital natives or *Millennials*

Research shows that millennials will make up 75 percent of the workforce by 2025. As digital natives, they expect consumer-grade technologies to be part of their everyday work lives. The people you need won't want to work at a place that is not cutting edge or doesn't give them the chance to learn, grow and innovate.

## *CFO perspective*

“Digital transformation is fundamentally human centric because it’s about imagining new ways of value creation. For that to happen, people have to be digital enablers as well as users of new digital capabilities.”

# Make the call

No matter what future you see ahead for your finance organization, one thing is sure. If business leaders around you are going to compete in the digital world, they'll need to process more information more quickly, and turn that information into deeper insights faster than ever.

That will require new technology – and a group of people who are curious and skilled in using it.

# Thank you

# Let's talk



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