

**Business Intelligence & Big Data for the Accounting Firm & Your Clients**

Session 11 – Thursday, July 13, 2017  
 Presenter – James C. Bourke, CPA.CITP.CFF.CGMA  
 WithumSmith+Brown

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**Jim Bourke**  
 CPA.CITP.CFF.CGMA

- Partner at WithumSmith+Brown
- Responsible for overseeing all technology issues and operations for the Firm's 15 offices and over 950 employees
- Managing Director – Advisory Services
- Named by *Accounting Today* as one of the Top 100 Influential People in the Accounting Profession
- Named by *CPA Practice Advisor* as one of the Top 25 Thought Leaders in Public Accounting Technology
- Past President, NJSCPA
- Past AICPA Board Member & Member of AICPA Council




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Business Intelligence & Big Data

***Interactive Session***

- So what is it and where does it exist in your firms? – open discussion.
- Examples of what you are doing.
- How can it change the way we do business?
- Technology that's available today – What are you using?
- What could the future look like?
- Q&A

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**The Emergence of the Business Intelligence Concept**

The development of business intelligence software can be traced back to 1865. This was the year when Professor Richard Miller Devens coined the term 'business intelligence' referring to common reminiscent between bankers' decision making in his book 'Cyclopaedia of Commercial and Business Anecdotes'. The same term is used nowadays for all corporate data-related analytic processes.

It took more than 150 years for business intelligence to become a separate scientific process embraced by entrepreneurs and develop the methods it offers nowadays.

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***Descriptive to Predictive***

Business Intelligence is progressively moving toward predictive as opposed to descriptive analytics. **Predictive analytics** are intended to give decision-makers a shot at understanding the future consequences of decisions, while **descriptive analytics** are more backward looking.

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**Business Intelligence Market to Reach \$26.8 Billion by 2021 - Driven by the Growth of Advanced Analytics & Adoption of Data-Driven Decision Making - Research and Markets**

<http://www.prnewswire.com/news-releases/business-intelligence-market-to-reach-268-billion-by-2021--driven-by-the-growth-of-advanced-analytics-adoption-of-data-driven-decision-making-research-and-markets-300427803.html>

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**What's Driving Business Intelligence Awareness?**

*Cloud  
Social  
Mobile*

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**Endless Possibilities with BI**



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**Think About BI from an Audit Perspective...**

•Testing complete sets of data, rather than just testing samples.

•Aiding risk assessment through identification of anomalies and trends, perhaps even through comparison to industry data, pointing auditors toward items they need to investigate further.

•Providing audit evidence through comprehensive analysis of organizations' general ledger systems.

See more at: <http://www.journalofaccountancy.com/issues/2015/apr/data-analytics-for-auditors.html>

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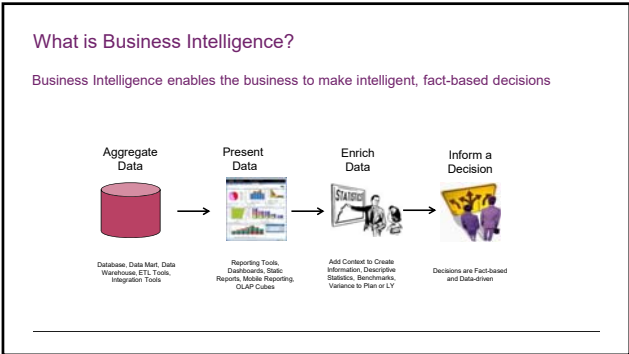
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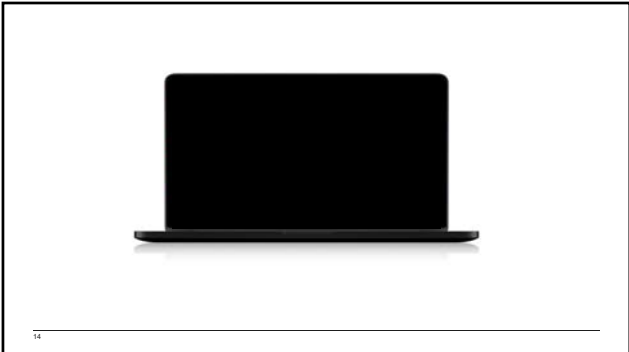
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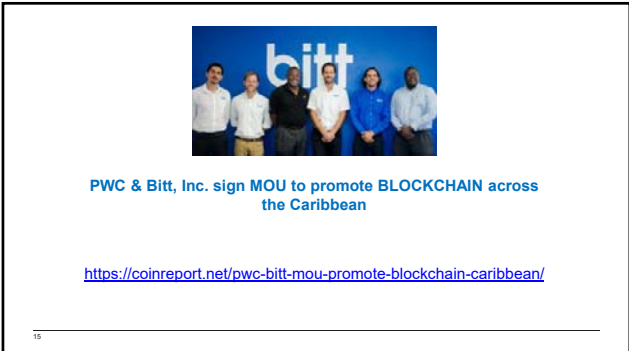
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**Is the next evolution of big data, big judgment?**  
 Find out how EY is helping companies transform the way decisions are made. [ey.com/analytics](http://ey.com/analytics)

■ ■ ■  
 The better the question. The better the answer. The better the world works.

**EY**  
 Building a better working world

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**Deloitte.**

**Becoming an Insight Driven Organisation with Deloitte Analytics in today's ever changing data landscape**

With the volume of data available to organisations, both internally and externally, they can easily get caught up in the processing of data and lose sight of improving the decision making process.

An Insight Driven Organisation is one which embeds analysis, data and reasoning into their decision making processes; they do not view Analytics as a project with a start and end date. IDOs see analytics as a core capability across their organisation to provide insight to support the decision making process; to tackle their most complex business problems; and to address the growing analytical trends.

To begin your journey contact our Subject Matter Experts:  
 Ryan Harris | Associate Director | Deloitte Analytics | [ryeharris@deloitte.co.za](mailto:ryeharris@deloitte.co.za)

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<https://youtu.be/CxD4F3MQRDI>

Here's what Deloitte's CEO told her 15-year-old son when he asked if robots would take his job someday.....

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"Mom, are robots going to take my job someday?" Engelbert, writing [in a post on LinkedIn](#), recalled being asked by her son.

"I told him: 'Don't worry — I've never met a machine with courage and empathy,'" she continued.

But to this, Engelbert urges employees to realize that not all is lost.

Cathy Engelbert, Deloitte CEO

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**"Tasks that are highly manual, routine, and predictable will be automated," she wrote. "But jobs are made up of many tasks. So the nature of existing jobs will change, and new careers will be created."**

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**"In the next 5 or 6 years I think that the accounting and auditing profession will change more that it has in the last 30."**

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**“Machines and AI-enabled technology will streamline data acquisition challenges faced by auditors. That will leave humans to review, analyze and audit.”**

PwC Audit Innovation Leaders, CFO.com, February 2017

<http://ww2.cfo.com/auditing/2017/02/artificial-intelligence-audits/>

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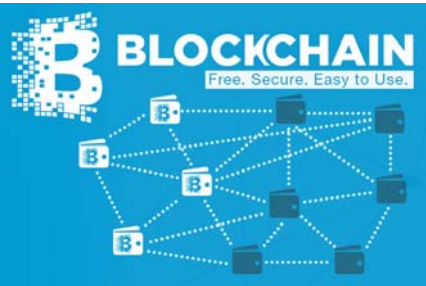
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**Reporting**  
Blockchain and the future of audit

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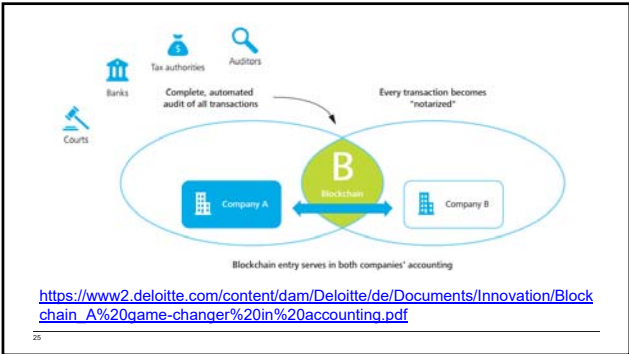
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**Deloitte.**

Blockchain Technology  
A game-changer in accounting?

The blockchain technology has the potential to shapeshift the nature of today's accounting. **It may constitute a way to vastly automate accounting processes in compliance with the regulatory requirements.** As described above, there are numerous starting points to leverage blockchain technology. A cascade of new applications will likely follow that are built on top of each other, leading way for new, unprecedented services.

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**How do you make "Sense" of the data?**

- [Spreadsheets](#)
- [Reporting and querying software](#)
- [Online analytical processing \(OLAP\)](#)
- [Digital dashboards](#)
- [Data mining](#)
- [Process visualization](#)
- [Data warehousing](#)
- [Local information systems](#)
- [Data cleansing](#)

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**Business analytics in a cloud you can trust**

Power BI is now available in three separate national clouds. These clouds offer the same levels of security, privacy, compliance and transparency as the global version of Power BI, combined with a unique model for local regulations on service delivery, data residency, access, and control.

<p><b>US Government</b></p> <p>Customers in the public sector are now able to use Power BI while meeting additional security, privacy, and compliance requirements.</p>	<p><b>Germany</b></p> <p>Power BI Germany is designed to meet the needs of the most regulated customers in Europe.*</p>	<p><b>China</b></p> <p>ZiYunet independently operates, provides, manages, and supports the delivery of Power BI in China.</p>
<a href="#">Learn more</a>	<a href="#">Learn more</a>	<a href="#">Learn more (Chinese)</a>

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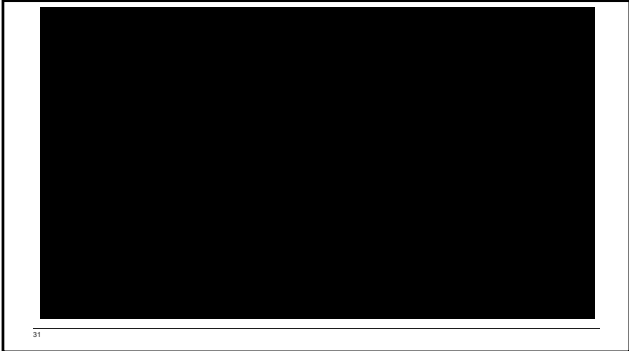
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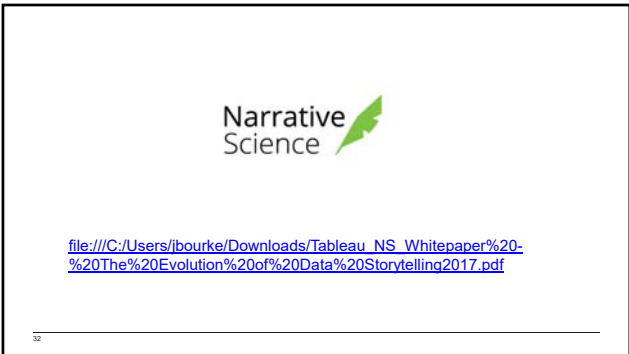
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**Validis** **CCH**  
a Wolters Kluwer business

<http://www.businesswire.com/news/home/20170410005748/en/Wolters-Kluwer-Enters-Exclusive-Agreement-Validis>

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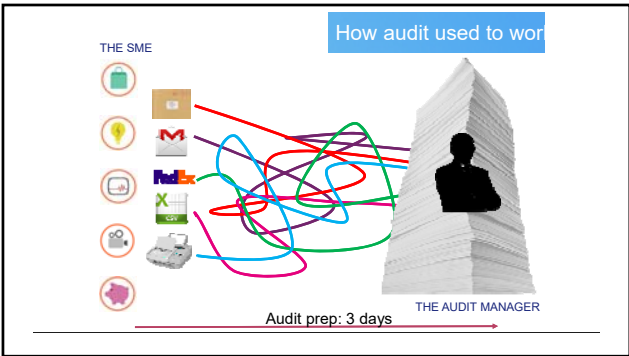
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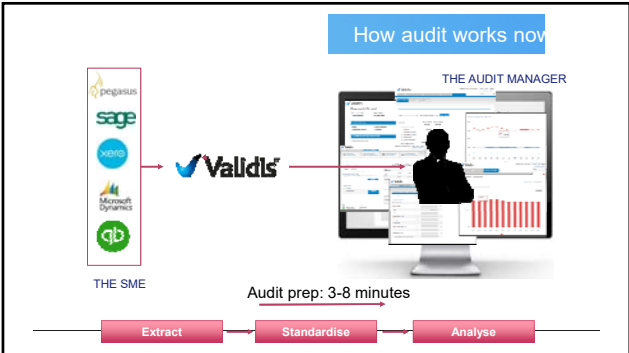
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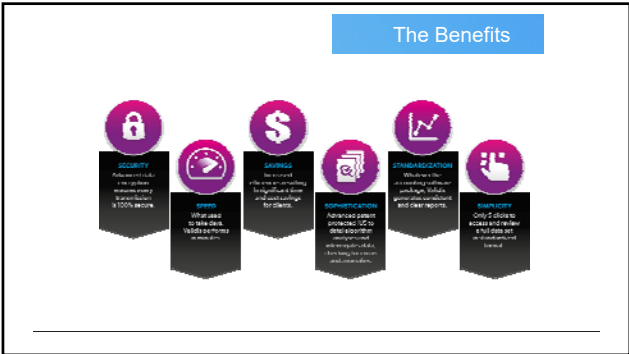
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How can You Leverage BI Analysis within your firm and with your clients?



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<http://www.spotlightreporting.com/>

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# ProfitSee

Sophisticated Financial Insights  
Made Simple

Forecasting - Analysis - Reporting - Consolidation - KPIs - Franchising - Benchmarking

<https://www.myprofitsee.com/>

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**KPIs**

Category	Actual	Target	Variance	Trend
Revenue	10,000,000	9,500,000	500,000	Up
Profit	2,000,000	1,800,000	200,000	Up
Expenses	8,000,000	7,700,000	300,000	Up

**FATHOM**

<http://www.fathomhq.com/>

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**float**

Bank Accounts

Monthly Totals & Forecast

Starting Balance: -4,761.00

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Starting Balance	-4,761.00	-7,268.00	-5,448.00	-6,671.00	-7,271.00	-7,771.00	-8,171.00		

<http://floatapp.com/>

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**FUTRLI**

Revenue

Profit

Expenses

<https://www.futrli.com/>

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**How will  
your  
Firm  
Change?**

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**Are You  
Willing  
to  
Change?**

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<http://www.predictiveanalyticstoday.com/top-business-intelligence-tools/>

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### Links to BI Grabbing Tools...

- 1010data
- ActiveReports
- Aquate Corporation
- AnyChart
- AnswerRocket
- AppSoft
- BQARD
- Comarch
- Crystal Reports
- Data Analyst
- Decision Support Panel
- Domo
- Dundas Data Visualization
- Dimensional Insight
- Gracheur, implementing the [reactive business intelligence \(RBI\)](#) approach
- GoodData - cloud-based
- Google Data Studio
- IBM Cognos
- iCubes
- InetSoft
- Information Builders

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### Links to BI Grabbing Tools...

- InfoZoom
- JackBe
- Jedox
- Klipfolio Dashboard
- Livestorm Analytics
- LIONsolver
- List & Label
- Logi Analytics
- Looker
- Microsoft
  - SQL Server Reporting Services
  - SQL Server Analysis Services
  - PerformancePoint Server 2007
  - Proclarity
  - Power Pivot
  - Power BI
- MicroStrategy
- Oracle
  - Hyperion Solutions Corporation
  - Business Intelligence Suite Enterprise Edition
- Panorama Software
- Pentaho (now Hitachi Data Systems)

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### Links to BI Grabbing Tools...

- Pervasive DataRush
- Pivotal Software
- Plotly
- Qlik
- RapidMiner
- Saami
- RW3 Technologies
- SAP NetWeaver Business Intelligence
  - Business Objects
- Sense
- SAS
- Siebel Systems
- Softio (now Tisco)
- Sybase IQ
- Tableau Software
- TARGET Business Intelligence
- Teradata
- XL Cubed
- Yellowfin Business Intelligence
- Zendesk
- Zoho Reports (as part of the Zoho Office Suite)
- Zoomdata

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