Digital Disruption & its impact on the accounting profession

David Smith | February, 2016
Digital Disruption and its impact on the accounting profession

APESB Board Meeting
17 February, 2016

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Going to the cloud checklist

- Data Access
- Availability
  - Service levels and track record
- Penetration testing
- Where is the data stored
- How easily can the data be exported
- Does the supplier have effective disaster recovery plans
- How is data transferred between users and the service secured
- Is the system scalable

Going to the cloud checklist

- What happens if the supplier becomes insolvent
- Does the supplier vet its personnel for criminal records
- How do scheduled outages occur
- How often is the application updated
- Is transaction rollback a core component of the product
- How does the vendor monitor, administer and manage the system
  - How does the vendor guarantee security of these workstations
- What is the vendor policy to notify customers of security breaches

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Security

- **Location of data**
  - Jurisdiction / privacy laws

- **Collaboration**
  - Who owns the data?

- **Access controls**
  - Level of authentication
  - Quality of passwords
  - Who is accountable?

- **Cyber attack**
  - Access prevention
  - Stolen data
  - Who is accountable?

- **Need for insurance?**

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RansomWare

Your personal files are encrypted!

Your important files encryption produced on the computer, photos, videos, documents, etc. Time is a complete list of encrypted files, and you can personally verify the.

Encryption was produced using a unique public key RSA-2048 generated for this computer. To decrypt files you need to obtain the private key.

The single copy of the private key, which will allow you to decrypt the files, located on a secret server on the internet, the server will delete the key after a time specified in the window. After that, nobody and never will be able to restore files...

To obtain the private key for the computer, which will automatically decrypt files, you need to pay 300 USD / 300 EUR / similar amount in another currency.

Click here to select the method of payment and the currency.

Any attempt to remove or damage this software will lead to the immediate destruction of the private key by server.

Private key will be destroyed on
00:01:30/30
1:25 PM

Time left
95:56:35

Next >>
The challenge of Shadow IT

Email: Hillary@AboveTheLaw.com

What Benghazi emails?
What foreign donor emails?
What difference does it make?

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Reliance

- **Reliance on data feeds**
  - Need for GS007 or similar standards?

- **Reliance on accounting data**

- **Reliance on analytics algorithms**
  - Use of prediction technologies
  - Who owns the data?

- **Trusting machine learning**

- **Data visualisation**
  - a need for standards?

Use of audit data analytics

- Accepting or continuing an audit engagement
  - Prediction of business failure, management fraud
  - Accepting or continuing an audit engagement

- Risk of material misstatement
  - Evaluating design and implementation of controls
  - Potential for fraud

- Performing analytical procedures based on audit assessment of risk

- Reliance on client’s data analytics?

- Can the level of assurance be increased beyond 95%
  - Tests performed on 100% of the data?
Big Data Analytics

• Using analytics to identify and analyse patterns are correlations that reveal matters of audit interest
  • Looks at all the data not just a subset
• Examples
  • Journal entries that might be fraudulent / unusual
  • Re-statement risk, fraud risk, insolvency risk
    • Correlations with data filed with regulators
  • Check 100% of debtors for post balance data payments to focus on remaining outstanding
  • Correlation with non financial measures
    • Ore dug from a mine, weather, disasters, exchange rates
CA ANZ Kairos Initiative

- Predictive analytics
  - Scaled for SMEs
- Microsoft / Westpac partnership

What happens if the algorithms give misleading information
- Who is accountable?
- Should there be audit style assurance?

Real Time
Continuous Auditing

- Continuous monitoring of controls, transactions & account balances over 100% of data
  - Examples – approval limits, invoices being split to circumvent limits
  - The challenge of “too much” data
- Use of machine learning
  - Events that are not important are ignored
  - Events that are important are highlighted
  - Looking for trends, anomalies, patterns that had not been specifically considered
- Dashboard presentation of data highlighting events/issues
  - Drill down to data
- Audited financial statements posted daily to the company's website
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AICPA Audit Data Standards

- Goal – make data available to auditors on demand
- Working with ERP vendors & audit tool developers
- Common data store regardless of base system that replicates enterprise data

Opportunities
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**Trusted transactions**

- Blockchain
  - Trusted transactions
  - Transaction can be any property
    - Payments
    - Voting
    - Identity
    - Licences
  - Disintermediates middlemen
  - Reliance – need for accounting services?

**Blockchain Apps: End-User View**

- Thousands
- Millions of use cases
- Decentralized Autonomous Organizations
- Transportation
- Online Storage
- Hash Networks
- Healthcare
- Smart Contracts
- Pegged Services
- Wagers
- Bounties
- Family trusts
- Performance proofs
- Escrow
- Millions of users
- Currency
- Transfers
- Payments
- Tips
- Crowdfunding

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**AICPA – Reimagining Audit in a Wired World (August, 2014)**

- To date, emphasis has been in efficiency not harnessing the potential leap from new technologies
  - Should deconstruct and re-engineer processes
  - Harness data science and related technologies
  - Extending audit theory to adopt new approaches
  - Modify audit standards
  - Modifying how and where auditing occurs
  - Enabling continuous auditing
What is an audit – what does the customer want?

- **Can technology:**
  - Help close the expectation gap
    - Help an auditor be a bloodhound and a watchdog
      - Most big firms already have forensic teams
  - Increase the level of assurance provided
  - Keep costs down
  - Enable more effective reporting
  - Enable continuous reporting

Auditing non financial data

- Ore dug from a mine
- Weather statistics
- Traffic pattern statistics
- Consumer behaviour
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Practice Performance

- AICPA – Future of Practice Monitoring Concept Paper – Dec 14
- When and how fast did reviews happen
- Queries raised by individuals, when were they cleared
- Ensuring training is happening
- Staff at the right levels doing the work
- Continuous monitor
- Dashboards to highlight issues/potential issues
- Performance ratings – think PS4 awards!
- Monitoring by regulators
  - Accounting bodies Quality Reviews

Key Document Completion

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Attract and retain talent “T” professionals
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