“Re-valuing Technology and its Impact on KM”

Agenda

- TD Global Overview
- Digital Transformation
- Knowledge Management Definition
- Knowledge Management Legacy Approach
- Group Discussion 1
- Coffee Break
- Cognitive Computing
- Group Discussion 2
- A new Approach
Originally formed in 1991
- Strategic partnerships with SAP & IBM
- Management includes former executives from Sybase, SAP & IBM
- Specialise in Information Management Solutions

Customers include:
- Banks
- Telcos
- Retail
- Insurance
- Public Sector

Headquarters in Singapore (Operating across South East Asia)
- Offices in South Africa
6 Predictions About The Future Of Digital Transformation

Key strategic thrust for most CEOs

- **DX initiatives** - consolidated into one vision and function

New skills and a shift in IT investments

- **Big data analytics** - foundation

Internet of Things - catalyst for expansion

- **Artificial Intelligence (AI)** - new revenue streams
2017 Digital Transformation Trends

Adaptability – vital for success
User Experience – Growing Importance
Rapid Innovation
Embrace Remote Workforce
Augmented Reality and Virutal Reality – in the workplace?
Big Data and Analytics
Internet of Things – drives Digital Transformation
Artificial Intelligence – low skilled roles and complex problems.
TD Global Approach

- Digital Transformation
  - Web
  - Mobile
  - B2B, B2C etc.
- Applications
- Data Base
- Analytics
- Infrastructure
- More Governance
- More Management
- On Premise / Cloud
- Mobile / Social
- Predictive
- Prescriptive
The market today is moving toward a **Digital Economy** along with better Business Insight.

For companies to achieve this, they need to **leverage their Knowledge Management** and Analytics, Legacy Systems and their Applications.

The problem is that many companies have a **Data Challenge** which hinders them in moving toward better Business Insight and the Digital Economy.
Digital Enterprise Stack

The Digital Economy

- Economies are becoming more efficient and digital in nature
- New digital technology opens new business models for disruption
- Organisations need to transform into “Digital Enterprises” to stay relevant

Why become a Digital Enterprise

- Enable businesses to produce better services, products and outcomes for their customers
- At much faster rates
- At lower costs

The Digital Enabler

- The core technology infrastructure upon which a company runs is the ultimate enabler
- Organizations with a modern, digital enterprise platform will be more agile and responsive to their customers than their competitors

The TD Global Digital Enterprise Stack

- Experience in Data and Analytics for past 25 years sets the core enabling foundation
- Acquisitions in the Application space enabled on the core Data & Analytics help execute DES
Knowledge is a familiarity, awareness or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning. Knowledge can refer to a theoretical or practical understanding of a subject. Wikipedia

Knowledge management (KM) is the process of capturing, developing, sharing, and effectively using organizational knowledge. It refers to a multi-disciplinary approach to achieving organizational objectives by making the best use of knowledge. Wikipedia

Not to be confused with Information Management or Content Management
Knowledge Management Legacy Approach

- **Content Management**
  - Information and knowledge stored in documents
  - Can be made available via search

- **Information Management**
  - Information and knowledge stored in structured data repositories
  - Can be made available via queries

- **Social Media**
  - Information and knowledge stored in people
  - Can be made available by social apps

- **Enterprise Search**
  - Information and knowledge stored in enterprise web
  - Can be made available by enterprise search engines
Knowledge Management Legacy Approach

• Stored in applications (e.g. Lotus Notes)

• W3 - Intranet

• Enterprise Search / Content Search

• Blue Pages / Sametime (Instant messaging, Forums)

• ‘Smart’ Applications
• Discuss in your group your KM journey in your organisations, the tools you are using, what is working well and some of the challenges you face.
• Feedback a summary to the larger group
Moving from Descriptive to Prescriptive

What's the best that can happen?
What will happen next?
What if these trends continue?
Why is this happening?
Ad Hoc Query (Dynamic)
Dashboards/Scorecards/KPIs
Ad Hoc Analytics/Discovery
Mining/Predictive Modeling
Forecasting/Extrapolation
Decision Optimization

Descriptive
Diagnostic
Predictive
Prescriptive

What happened?
How many, how often, where?
Where exactly is the problem?
What actions are needed?
Ad Hoc Query (Dynamic)
Dashboards/Scorecards/KPIs
Ad Hoc Analytics/Discovery
Mining/Predictive Modeling
Forecasting/Extrapolation
Decision Optimization

Business Value
What about Cognitive computing?
Cognitive computing is the simulation of human thought processes in a computerized model. Cognitive computing involves self-learning systems that use data mining, pattern recognition and natural language processing to mimic the way the human brain works.

- Robotics
- Self Learning
- Driverless Cars
- IBM Watson – Jeopardy, Debating, Advisors, Robots
- Apple’s Siri, Emotient
- Google’s Cloud Machine Learning
- Amazon’s Machine Learning
- Microsoft’s Cortana and Project Oxford
The world’s progress is driven by expertise

Oncologist  Wealth Manager  Digital Marketing Expert  Contact Center Manager  Master Chef  Etc.
Experts build expertise through cognition

Observe
Interpret & Evaluate
Decide

Cognition
IBM Watson

IBM Watson - Jeopardy
Won the game show against top human contenders in 2011

Watson in Financial Services

Watson in Healthcare
IBM Watson in Singapore: Incubator for Asia – DBS Bank to create new use cases based on disruptive technologies, and to assist in its strategy to support FinTech startups in the region.

Robots powered by Watson:
- Hilton Hotel Concierge
- Kids toy
IBM Watson Knowledge Studio is a cloud-based application that enables developers and domain experts to collaborate on the creation of custom annotator components that can be used to identify mentions and relations in unstructured text.

Cognitive Computing Examples

- **Personal Shopper** – North Face (built partner Fluid)
- **Watson for Oncology** – IBM
- **Jasmine Tax Advisor** Singapore IRAS
- **Cognitive Travel** – WayBlazer
- **Dancing robot** – Nao-mi
WE'RE DONE! PLEASE VIEW MY RECOMMENDED JACKETS!

LEAVE FEEDBACK

HIGH MATCH

MEDIUM MATCH

LOW MATCH

WOMEN'S ISOLATE JACKET

WOMEN'S RAPIDA JACKET

LOW MATCH

LOW MATCH
Hello, I'm Jasmine, a virtual assistant, and I can help you with queries about Individual Income Tax. Below are some commonly-asked questions about your tax bill and payment. If you have a question, just type it in the box at the bottom and I’ll try my best to answer as I am still learning.
• Discuss in your groups examples for particular industries of how cognitive systems changes the world of KM: Ways to enhance knowledge management with analytics and cognitive solutions
  – eg. Industry IT: Call centre could use Expert Advisors
  – HR: AskHR function.

• Discuss the impact on job roles –
  – how these will change in the future.
  eg. Taxi drivers in a world of driver-less cars!
The New Approach – Examples

- E-Commerce
- Governance Catalog
- IT Asset Management
• E-Commerce
  – Product Knowledge
  – Customer Knowledge
  – Pricing Knowledge
  – Delivery Knowledge
• No operators so has to be embedded
Governance and Metadata Management

- Knowledge Management of data/information environment
  - Definitions of business terms
  - Business Processes and Policies
  - Business Rules
  - Information on where information came from (Lineage)
  - Where to find the associated data
  - What happened if things change (Impact Analysis)
Use of Metadata for Defining Business Knowledge

Base product - Term Details

- **Name**: Base product
- **Short Description**: Identifies that the Product, with its associated Conditions and Procedures, is the primary form of the Product.
- **Parent Category**: Product / Industry Model Business Vocabulary / Business Terms
- **Labels (2)**: European Union, Product Reporting Area
- **Steward**: Mr. Roger Weston
- **Status**: Standard

- **General Information**
- **Associated Terms (2)**
- **Assigned Assets (1)**
- **Notes**
- **History**
Discovery
  - Understand what Assets exist
    • Multiple discovery tools
    • Confused asset definitions

Normalise
  - Single definition of assets across multiple systems

Enhance
  - Add information
    • Hardware Specs, Pricing Specs, Lifecycle, Windows Compatibility, Virtualisation, Procurement.
BDNA Technopedia: Catalog and Content Packs

Catalog: Unique Identity

• Category/Sub Category
• Manufacturers/Vendors
• Product Family
• Product Name / Model
• Product Version
• Product Edition
• Etc.

Content Packs: Market Intelligence

Common Platform Enumeration
Hardware Specifications
Hardware and Software Pricing
Lifecycle and Support
Open Source Compliance
Procurement
Virtualization Compatibility
Windows Compatibility

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In this new world of digital transformation and cognitive computing, Knowledge Management is changing and enhancing into an exciting area that involves Man and Machine.

Are you ready?
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THANK YOU