What does the next generation of business models mean for information quality?

Robert Hillard

Robert Hillard is the author of “Information-Driven Business” (Wiley, 2010), Vice-President of the MIKE2.0 Governance Association, national leader of Deloitte’s Technology Consulting division and a past (founding) president of TDWI in Australia.

Robert was the architect behind the world’s first major implementation of XBRL (APRA) and has held global Information Management leadership roles. He has appeared in the electronic and print media throughout the world over many years to explain the social and business impacts of “Information Overload”.

His book, Information-Driven Business, provides techniques to harness the massive volume of data that every organisation is facing to spot opportunities, create new business models and avoid being overwhelmed by the complexity of finding answers to apparently simple questions.

Quick links: www.infodrivenbusiness.com and www.infodrivenbusiness.com/media.html
What does the next generation of business models mean for information quality?
Driving innovation:
• Combination of ideas
• Combination of needs/wants

Driving growth:
• Leverage of balance sheet
• Leverage of scale

1980s:
Growth driven by balance sheets

1990s:
Growth driven by information synergies

Information Growth doesn’t just go on for ever

• 1990: price of storage hit the important physiological threshold of US$1 per megabyte
• Apparently insatiable growth in business data but we expect growth will slow and transition to the “new economy” in the future
Business Growth doesn’t just go on for ever

- Impact of early part of growth has been ability to centralise and hence there was a growth in the practical size of business (consolidation)
- Impact of current growth is the establishment of standards which is enabling JVs and businesses based on communities (new JV businesses with big projects and smaller balance sheets)
- Impact of future information growth is potentially the reduction in the size (in comparable dollars) of business (disaggregation becomes a business driver in 2020s)

- Traditionally information is governed as a system
- Quality is imposed
- Increasingly trying to put the right motivations in place
- Moving to an information economy
- Quality is built into the price
Data in the cloud isn’t about the IT department

"Optus TV Now is a cloud-storage service…"
"the content is stored in a data centre and downloaded to different devices."

Information is the new accounting!
Increasingly the CFO is acting as the information broker or glue across JVs and divisions:

- Business Process Outsourcing has become practical and mainstream changing the focus of shared services
- Exchange of information has enabled companies to outsource elements of their supply chain

Who does the CEO contact to find their current headcount?
☐ The HR Director  or  ☑ The CFO?

Information Economics

Intrinsic Value of Information
How good and easy to use is the data versus how likely are others outside the organization to have it also? This the presumptive value of information, enabling apples-to-oranges comparisons.

\[ IVI = \frac{Accuracy \times Completeness \times Accessibility \times Utility}{n} \]

Business Value of Information
The value of information to a business process: How good is the data? How applicable to the business or a particular business process is it? How quickly can we get fresh data to the point of the business process?

\[ BVI = \frac{Accuracy \times Completeness \times Relevance \times Latency}{n} \]

Loss Value of Information
The cost of not having information: What would it cost to replace the data, and what is the financial impact to the business if the data were lost over a time period (t)?

\[ LVI = AcquisitionCost + \sum_t LostRevenue \]

Performance Value of Information
Value of information to business objectives, represented as key performance indicator (KPI) targets: How much does having a unit of information incrementally contribute to moving closer toward all n KPI targets over a given period?

\[ PVI = \sum_l \left( MKPI(l) - AKPI(l) \right) \]

Where:
- \( MKPI(l) \): Measured KPI
- \( AKPI(l) \): Achieved KPI
- \( l \): control

Economic Value of Information
The bottom-line financial value for the information asset. The Performance Value of Information (PVI) for a revenue metric, less the cost of acquiring, administering, and applying the information.

\[ EVI = PVI(l) - \left( AcquisitionCost + AdministrationCost + ApplicationCost \right) \]

Market Value of Information
The income that can be generated by selling, renting or bartering with this information. How much is a business partner (p) willing to pay for access to this information?

\[ MVI = \sum_p \left( ExclusivePrice + DiscountRate \right) \]
An innovation versus separation view of information

Every major innovation in business has linked information together in a new way. In addition, sustainable innovation finds a logarithmic relationship between complexity and separation. Consider:

- Online book sellers
- Airline loyalty schemes
- Online travel booking
- Solar industry
Questions that businesses ask as they share information

• How much is each party sharing (quantity)?
• What is the market value of this information?
• What is the cost of misinformation (quality)?

Information Quality in the brave new world

• Old assumptions about “fit for purpose” don’t work when governance is a form of economic regulation
• Contracts become more important than SLAs
• Information value takes account of accuracy
• The most valuable businesses play the role of information broker and regulator
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