

The Myth of Business Intelligence

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Agenda

- Looking at the Past
- The Chasm
- Common Myths
- Filling the Void



Looking at the Past

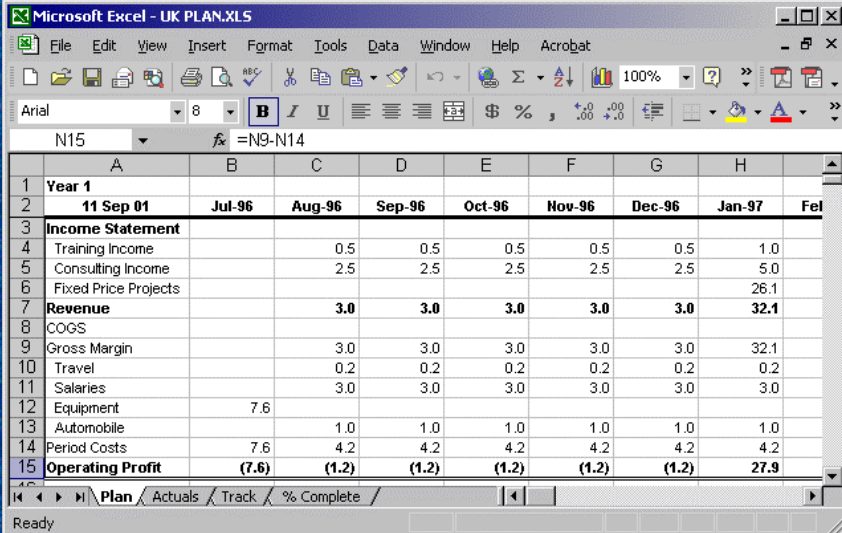


- Sequential Processing
- 'Flat' Reports
- 6 Months to produce
- Slow to respond
- Out of date before implemented



Looking at the Past

- Personal Computing
- Very flexible
- Time Consuming
- Tedious
- Instant



The screenshot shows a Microsoft Excel spreadsheet titled "UK PLAN.XLS". The spreadsheet displays an income statement for "Year 1" from "11 Sep 01" to "Jan 97". The data is organized in columns for each month and rows for various income and cost categories. The "Operating Profit" is calculated as (7.6) for Jul-96, (1.2) for Aug-96, Sep-96, Oct-96, and Nov-96, and 27.9 for Dec-96 and Jan-97.

	A	B	C	D	E	F	G	H	I
1	Year 1								
2	11 Sep 01	Jul-96	Aug-96	Sep-96	Oct-96	Nov-96	Dec-96	Jan-97	Feb
3	Income Statement								
4	Training Income		0.5	0.5	0.5	0.5	0.5	1.0	
5	Consulting Income		2.5	2.5	2.5	2.5	2.5	5.0	
6	Fixed Price Projects							26.1	
7	Revenue		3.0	3.0	3.0	3.0	3.0	32.1	
8	COGS								
9	Gross Margin		3.0	3.0	3.0	3.0	3.0	32.1	
10	Travel		0.2	0.2	0.2	0.2	0.2	0.2	
11	Salaries		3.0	3.0	3.0	3.0	3.0	3.0	
12	Equipment	7.6							
13	Automobile		1.0	1.0	1.0	1.0	1.0	1.0	
14	Period Costs	7.6	4.2	4.2	4.2	4.2	4.2	4.2	
15	Operating Profit		(7.6)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	27.9



Looking at the Past

Reporting Systems



Decision Support Systems



Looking at the Past

- Database Engines
- Classic Express / SAS etc.
- pcExpress v1.5 released in 1982

PCX (Beta 1)

PERIOD: P891B

Service	CUSTOMER		DEP40D		DEP40F
	Parcels	Consignmen	Parcels	Consignmen	
Parcels <50kg T&S	31	30	3	3	0
Parcels <100kg T&S	16	15	8	7	0
Parcels 10-500kg T&S	34	23	17	11	0
Parcels >500kg T&S	2	2	5	2	0
TOTAL P891B	83	69	33	23	0

Parcels - Number of parcels carried
Database I LINK LOCAL



Looking at the Past

That was all pre-Windows



Looking at the Past



- Microsoft Windows
- IBM OS/2



Looking at the Past

Decision Support Systems



Executive Information Systems



Looking at the Past

What were the differences?

- Graphical User Interface – Let's all imitate the Microsoft Interface
- Supposedly more "Intuitive"



Looking at the Past

Nothing much has changed since then!



Looking at the Past

“The query/report writers and spread-sheets have been extremely limited in the ways in which data (having already been retrieved from the DBMS) can be aggregated, summarized, consolidated, summed, viewed, and analyzed.”

E.F. Codd, S.B. Codd and C.T. Salley
Providing OLAP to User-Analysts



Looking at the Past

“Most notably lacking has been the ability to consolidate, view, and analyze data according to multiple dimensions... called ‘multidimensional data analysis’”

E.F. Codd, S.B. Codd and C.T. Salley
Providing OLAP to User-Analysts



Looking at the Past

Business Intelligence is the process of transforming *data* into *information* and through discovery transforming that information into *knowledge*.

Gartner Group



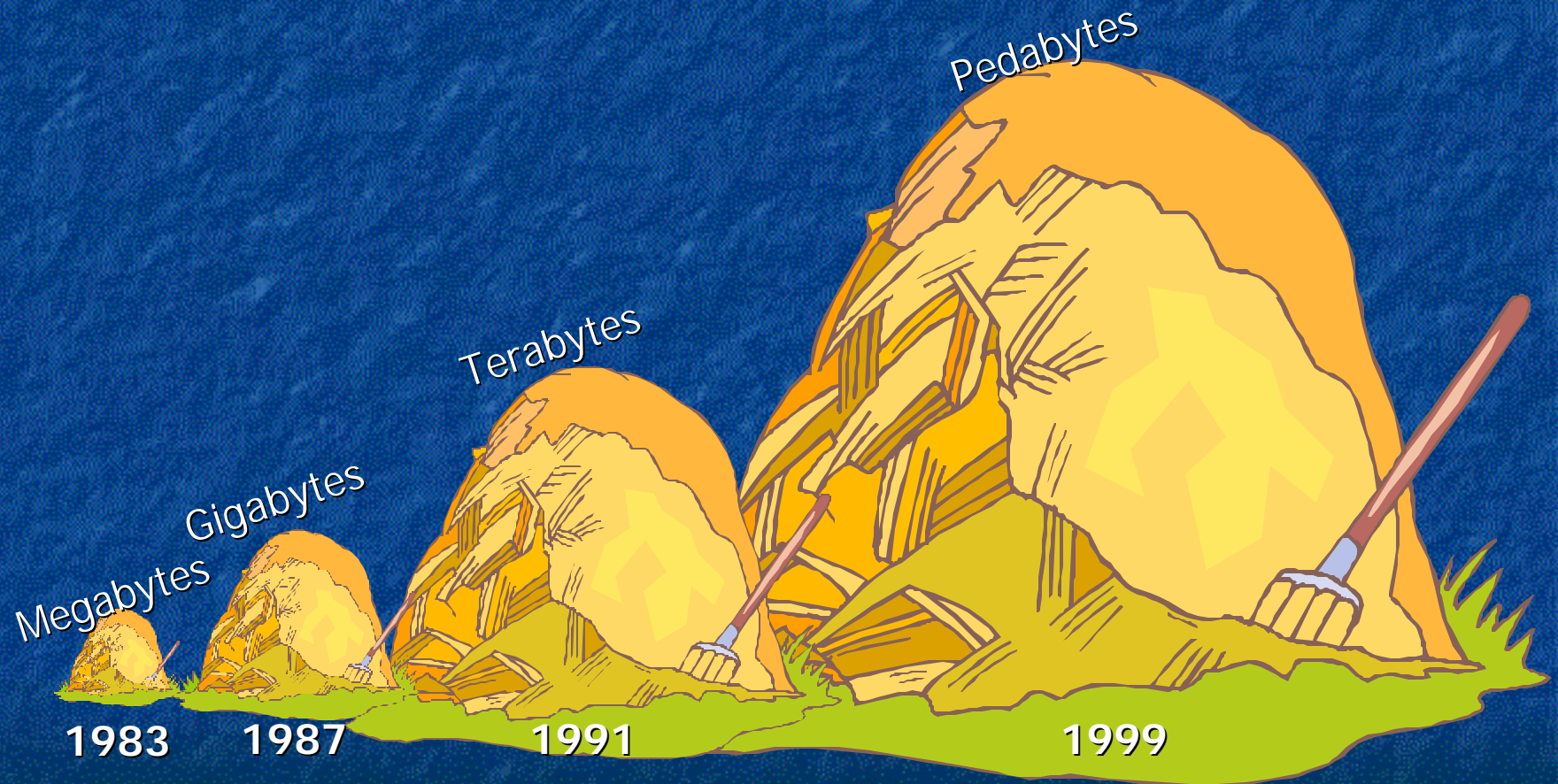
Looking at the Past

Business Intelligence is the process of transforming data into information and through **discovery** transforming that information into knowledge.

Gartner Group



The Chasm



Common Myths



Relational Databases are Great for Business Intelligence ...

Optimized for fast transactional response times

Designed to handle a large number of users

Un-natural data storage for end users

Designed to hold large amounts of detail level data

"XADEMO_ANALYTIC_FACTS"						
	ROD_LEA...	CHAN_LEA...	TIME_LEAV...	SAL		
	PORTCD	DIRECT	JAN96	2192		
	PORTCD	DIRECT	JAN96	64		
	PORTCD	DIRECT	JAN96	848	1	
	VANCOUVER	PORTCD	DIRECT	JAN96	1344	2
	EDMONTON	PORTCD	DIRECT	JAN96	1200	2
	CALGARY	PORTCD	DIRECT	JAN96	5696	9
	BOSTON	PORTCD	DIRECT	JAN96	616	1
	ES	PORTCD	DIRECT	JAN96	2000	3
	PORTCD	DIRECT	JAN96	776	0	
	PORTCD	DIRECT	JAN96	208		



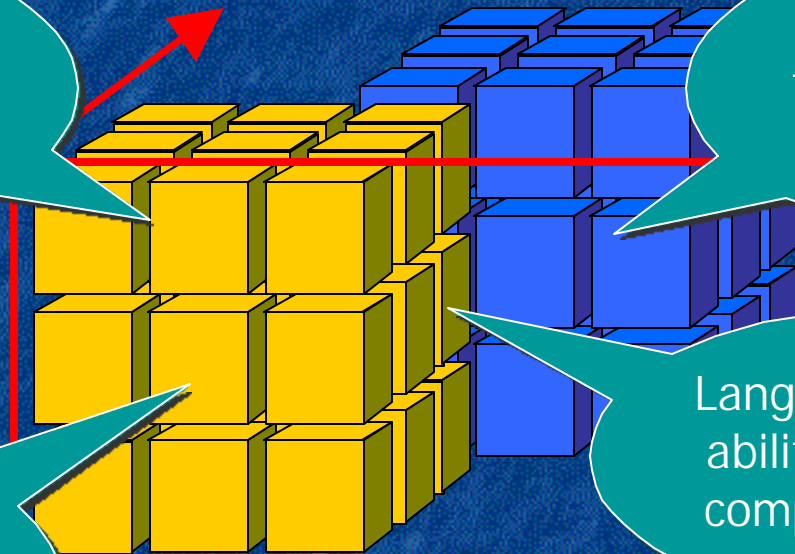
Cubes R Us ...

Optimized for fast slice, dice and pivot

Provides fully flexible end user functionality

Natural "view" of the data in the eyes of end users

Language allows ability to model complete cubes



Executives want to be able to *rotate* their reports ...



"I just want the system to make my job easier"

"Can't this thing tell me what I want to know without me having to dig for it?"



Executives want to be able to build their own reports ...

"What do I pay consultants and my IT department for?"

"I have technofobia, I really can't handle this!"

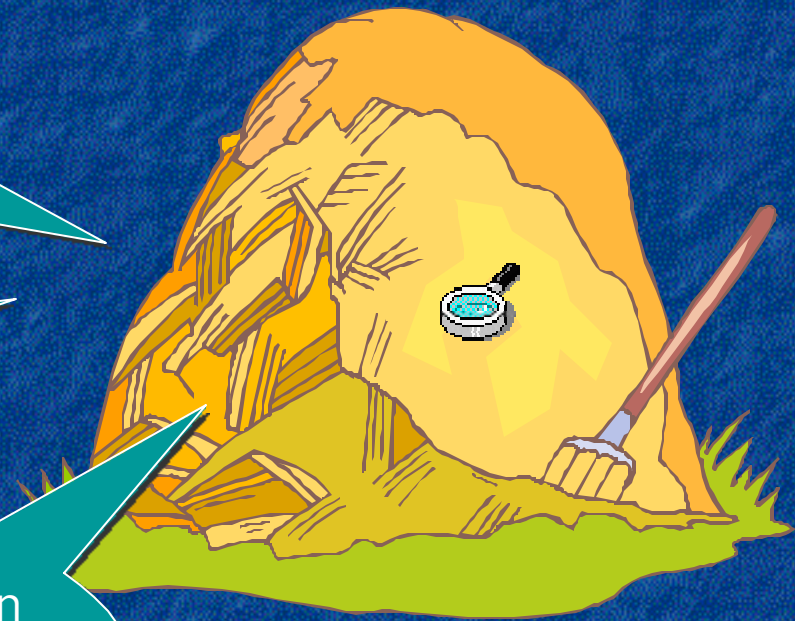


Executives need to be able to drill to the lowest level of detail ...

"I don't trust the people beneath me to do their job properly"

"I like having access to all the data that I was familiar with..."

"I'm a hands on kind of manager – I need the information"



The Business Rule Model

What are the business questions that need to be answered?

What is the sequence to the rules?

Can we build DB structures to hold the rules?

What parameters drive the rules and processes?



Change the way we build

- The Analysis phase must change to reflect the fact that we are going to build a system using the Business Rules Model.
- The Database Design will change to reflect the new model.
- The Menu navigation must change to reflect the new model.



Change the Analysis Phase

- Identify key users and groups.
- Walk through the *Analysis process* that each of the users and groups works through.
- Examine current reports, identify parameters that cause them to highlight particular figures.



Change the Analysis Phase

- Build the Business Rule Model.
- Conceptualize the models that will be needed to support the Business Rule Model.
- Determine the inter-relationship between the Rules.



Change the Database Design

- Build User-based structures that hold history and favorites etc.
- High level aggregate objects (Tables / Measures) that provide fast access to summary level data.
- Key measures based on high level enquiries by users.



Change the Database Design

- Question the “coolness” of designs with the “So What?” question.
- Design to make use of usage tracking information.



Change the Menu style

- Ditch traditional Menus.
- Menus should be structured along the Business Rules time line.
- The interface should mould itself to the end-user.



Change the Menu style

- The Logic of the Interface should match the Business *Process*.
- The Links between the interface and the models should be seamless.
- Each user must be able to reset the parameters for any Business Rule Model.



Traditional Menus

- Standard Reports
- Forecasts
- Budget
- Growth
- Ranking
- Review
- Quota
- Exceptions
- Trend
- ...



Traditional Menus

The screenshot displays the Oracle Sales Analyzer web application interface. The title bar indicates it is running in Microsoft Internet Explorer. The main header features the Oracle logo and the text "Oracle Sales Analyzer". On the right side of the header, there are "Exit" and "Help" buttons.

The interface is divided into two main sections:

- Navigator:** A vertical sidebar on the left containing a tree view of menu items. The "Geographies Currently Selling" item is selected and highlighted in blue. Other visible items include Documents, Comparison, Distribution, Products Currently Selling, Geographies with Increasing Sales, Products with Increasing Sales, New Geography Sales, New Product Sales, Geographies Not Selling, Products Not Selling, Exception, 80/20 Product Rule, Geography Sales Above/Below, Product Sales Above/Below, Growth, Quota, Ranking, Review, Trend, and Custom Measures.
- Geographies Currently Selling:** The main content area, titled "Geographies Currently Selling" with a "Settings" link. It contains a toolbar with icons for home, search, and help. Below the toolbar are two dropdown menus: "Product" (set to "All Products") and "Channel" (set to "All Channels").

Below the dropdowns is a data table showing sales data for various geographies from January 1998 to May 1998, along with a total. The table is titled "Units Sold".

	Units Sold					Total
	January 1998	February 1998	March 1998	April 1998	May 1998	
All Geographies	27,261	20,223	28,865	28,004	31,906	136,259
North America	14,840	10,699	15,833	13,272	17,276	71,920
Europe	8,601	6,334	8,961	10,515	9,944	44,355
Asia Pacific	3,820	3,190	4,071	4,217	4,686	19,984
Western Unit...	4,146	2,826	4,838	3,719	4,737	20,266



Newspaper Style Menu

- Today's Headlines
- Stories in detail
- Departmental Information



Example Menu

News in Short

- Increase in products that have failed to perform
- Key Performance problems
- Highlights

Today's Top Stories

- Today's Sales Figures
- Financial Position
- Budget Process

- Key Dates
- Information



Example Menu and Interface

The screenshot displays the QuickBooks Pro Vendor Navigator interface. The window title is "Business Enterprise Software and Training Ltd (Accountant's Copy Exists) - QuickBooks Pro - [Vendor Navigator]". The menu bar includes File, Edit, View, Lists, Company, Customers, Vendors, Employees, Banking, Reports, Window, and Help. The toolbar contains icons for Invoice, Timesheet, Cheque, Credit Card, Cust, Item, MemTx, Vend, Bill, Reg, Acctt, Rmnd, and Find.

The main interface is divided into several sections:

- Left Sidebar:** Contains "Navigators" (Company, Customers, Vendors, Employees, Banking, Business Services, Reports, Info & Support) and "Open Windows" (currently empty).
- Central Panel:** Titled "Vendors", it features a flowchart of vendor processes: "Enter Bills" (with a laptop icon) leads to "Pay Bills" (with a check icon); "Purchase Orders" (with a PO icon) leads to "Receive Items" (with a truck icon), which then leads to "Receive Bill" (with a bill icon); "Receive Items with Bill" (with a truck icon) leads to "Receive YAT Refunds" (with a bill icon); "Receive YAT Liabilities" (with a bill icon) also leads to "Receive YAT Refunds". Below the flowchart are icons for "Vendors", "Items & Services", "PO List", and "Adjust Qty on Hand".
- Right Panel:** Titled "Related Activities", it includes "Print Cheques...", "Add a Vendor...", and "Vendor Detail Center...". Below this is the "Memorised Reports" section, which has a "Vendors" dropdown menu and a list of reports: "A/P Ageing Summary", "Unpaid Bills Detail", "Vendor Balance Detail", and "Vendor Balance Summary". A "Display or Print this Group" button is present, along with "Memorised Report List" and "Report Finder" options.



Bibliography

Date D/M/Y	Details
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13/12/00	developers guide to olap API.pdf
13/12/00	concepts and admin 9i.pdf
15/12/00	9i presentation.ppt
05/06/01	OLAP Services Concepts and Administration Guide a88755.pdf
05/06/01	OLAP Services Developer's Guide to the OLAP DML a86720.pdf
05/06/01	OLAP Services Developer's Guide to the Oracle OLAP API a88756.pdf
21/06/01	March DSS DW User Group 9i.ppt

