Open Source Business Intelligence and Data Warehousing
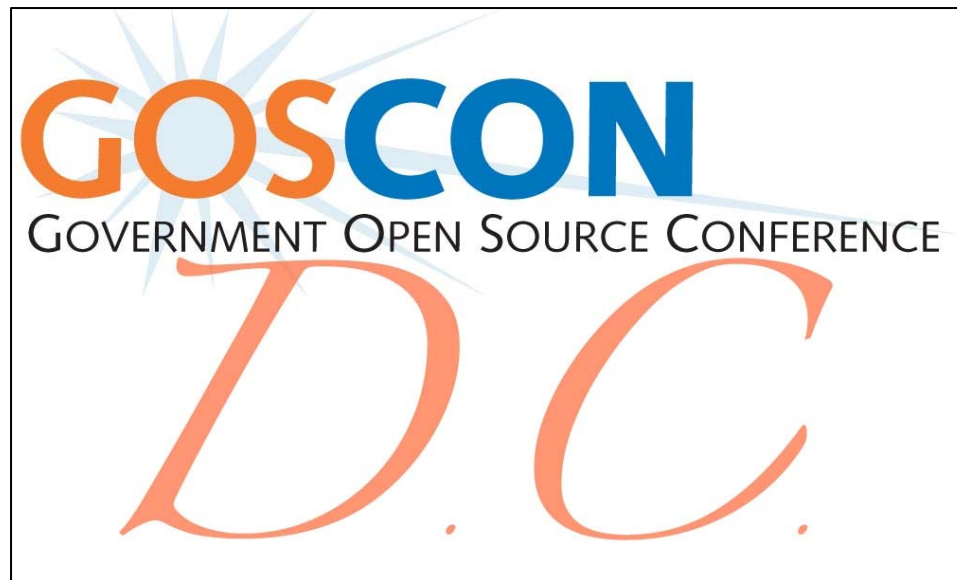
Speakers:

John Keese
President, Autonomic Resources

Open Source Business Intelligence in Government

Presented By - John Keese

President - Autonomic Resources

Chairman of Board - Open Source Software Institute

Federal Data before BI

According to Max Weber a early economist and proponent of structured government decision making - The complexities of modern governance call for "the personally detached and strictly objective expert." Only institutionalized and governmental professionals possess the expertise, resources, discipline, and time to make public-policy decisions.

Citizen participation is **hard to organize and administer**, and even harder to scale. It is one thing for 10 bureaucrats to debate a policy and come to an informed consensus; try getting the same result with 10,000 people–or 10 million.

Why BI Is Important to Good Government

- BI delivered data provides for each person to have private information even if it's just an individual interpretation of the known facts.

  - Because individuals can independently gain access to data - ones opinion aren't determined by the opinions of those around them. (media controlled think – "group think")

- BI allows for the appropriate decentralization of information allowing people to specialize and draw on local knowledge.

- BI data aggregation provides a mechanism for turning private judgments into a **collective decision**.

Concepts from *The Wisdom of Crowds: Why the Many Are Smarter Than the Few and How Collective Wisdom Shapes Business, Economies, Societies and Nations*, published in 2004, ISBN 978-0385503860, is a book written by James Surowiecki

BI may have helped make better decisions when

- The Columbia shuttle disaster occured, where some blamed on hierarchical NASA management information systems that were at the time closed to the insights and knowledge of lower-level engineers.

- When US Intelligence community, per 9/11 Commission Report claims, failed to prevent the 11 September 2001 attacks partly because information held by one subdivision was not accessible by another.

  - Argument is that crowds (of intelligence analysts in this case) work best when they choose for themselves what to work on and what information they need.

    - **Result** - The Office of the Director of National Intelligence and the CIA have created a Wikipedia style information sharing network called **Intellipedia** that will help the free flow of information to prevent such failures again.

Open Source BI Objectives in Government

- Open Source technology may be changing the relationship between democracy and expertise, affording an opportunity to improve competence by making good information available for better governance. (Census 2010, whitehouse.gov)

- Large-scale knowledge-sharing projects, such as the Wikipedia online encyclopedia. (Intellipedia)

- Ordinary people, regardless of institutional affiliation or professional status, possess information–serious, expert, fact-based, scientific information–to enhance decision-making, information not otherwise available to isolated government personnel. (usaspending.gov)

- Partly as a result of the simple tools now available for collaboration and partly as a result of a highly mobile labor market of "knowledge workers," people are ready and willing to share that information across geographic, disciplinary, and institutional boundaries. (ers.usda.gov)

Organizational Trending
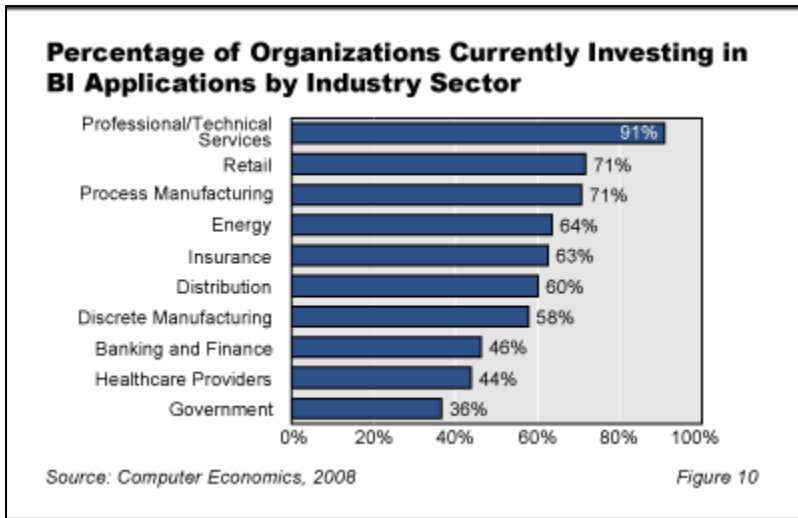

Percentage of Organizations Currently Investing in BI Applications by Industry Sector

Industry Sector	Percentage
Professional/Technical Services	91%
Retail	71%
Process Manufacturing	71%
Energy	64%
Insurance	63%
Distribution	60%
Discrete Manufacturing	58%
Banking and Finance	46%
Healthcare Providers	44%
Government	36%

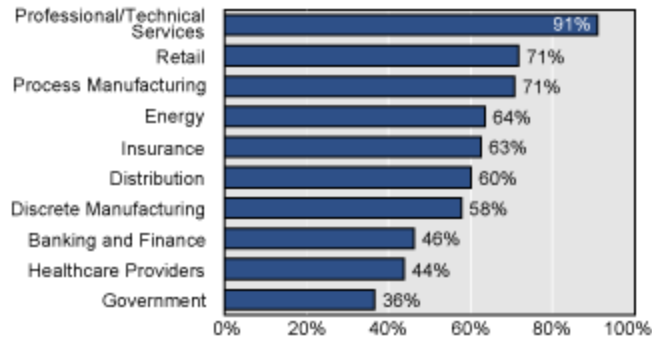Source: Computer Economics, 2008   Figure 10

While organizations are still having difficulty measuring a return on their BI investments and are finding that **costs can be higher than anticipated**, the perceived value of having timely, in-depth business intelligence appears to be **outweighing the risks.**

Gartner's Top 10 Strategic Technologies for 2009

1. Virtualization

2. *Business Intelligence*

3. Cloud Computing

4. Green IT

5. Unified Communications

6. Social Software and Social Networking

7. Web Oriented Architecture

8. Enterprise Mashups

9. Specialized Systems

10. Servers – Beyond Blades

Source Gartner Group

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Source: Computer Economics, 2008 — Figure 10

BI Applications: Current Investment Trends

- Not Investing 41%
- Implementing or increasing 59%

Source: Computer Economics, 2008 — Figure 3

BI Applications: Adoption Trends

	Percentage of Respondents
No activity	16%
Researching/ piloting	16%
Implementing	27%
In place: no further plans	8%
In place: Increasing	33%
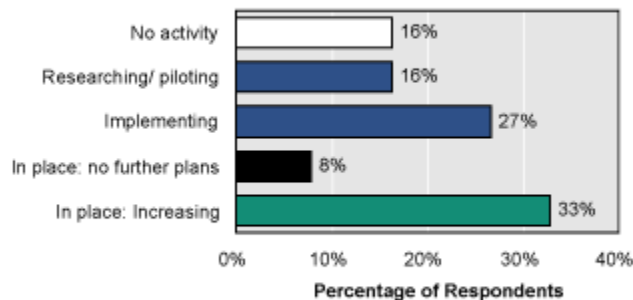
Source: Computer Economics, 2008 — Figure 1

BI Applications: Adoption Trends by Organization Size

Legend: Researching/ piloting, Implementing, In place: no further plans, In place: Increasing

Size	Researching/ piloting	Implementing	In place: no further plans	In place: Increasing	Total
Large	12%	25%	8%	45%	90%
Midsize	14%	34%	13%	21%	82%
Small	25%	20%	2%	30%	77%

Percent of Organizations
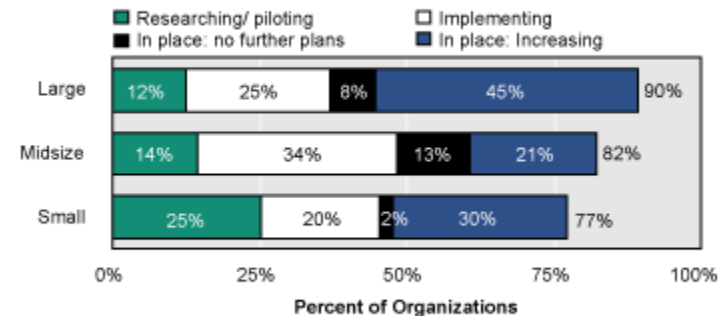
Source: Computer Economics, 2008 — Figure 6

Market Trending

challengers | leaders

ability to execute

IBM (Cognos)
Microsoft
SAP (Business Objects) ● ● Oracle
Information Builders ● ● SAS
MicroStrategy ●
● QlikTech

arcplan ●
Board International ● Actuate ● Tibco Spotfire
● Panorama Software

niche players | visionaries

completeness of vision
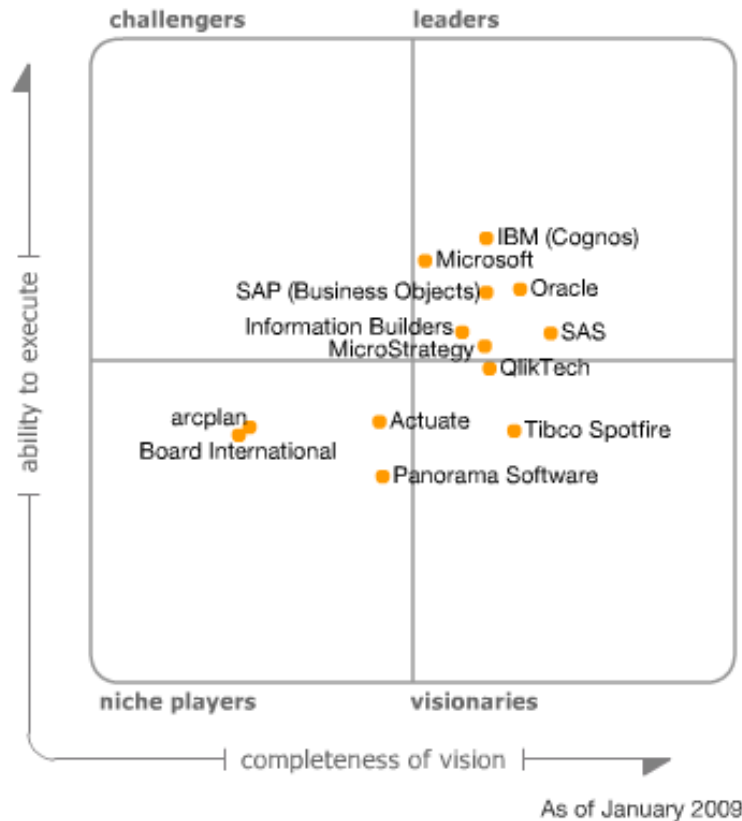
As of January 2009

Source: Gartner (January 2009)

In 2009 Gartner gave serious consideration to including open-source BI suppliers in its "Magic Quadrant", and even altered the inclusion criteria to allow for this *eventuality*. However because revenue generation for Commercial Open Source companies had yet generated enough revenues they have yet to be included in the "Magic Quadrant".

However, while they did meet the revenue requirement, COS BI providers, like **Jaspersoft and Pentaho,** have emerged as viable players in the BI platform market and as such Gartner invited these firms to take part in the Magic Quadrant user survey of 2009. Conclusion was that several open source vendors provide comprehensive BI platform capabilities that are comparable to traditional BI platform vendors. (i.e. its not just the expensive BI stuff that will show up next year)

Trending Effects

"The consolidation in the BI market has not simplified vendor selection decisions; if anything, it has made them more complicated, because the acquisitions have thrown many existing product road maps into confusion," writes Gartner Research Director Kurt Schlegel, in "Key Issues for Business Intelligence and Performance Management Initiatives, 2008."

In other words, those companies spending millions on BI tools aren't guaranteed anything. "Whatever you buy, it may become something else tomorrow," under a different vendor, says Ken Anderson, an executive strategist at the Burton Group who follows the BI market. That makes it difficult to plan BI strategy. "If you're going to make a large investment in software," he adds, "you just don't know where that's going to go."
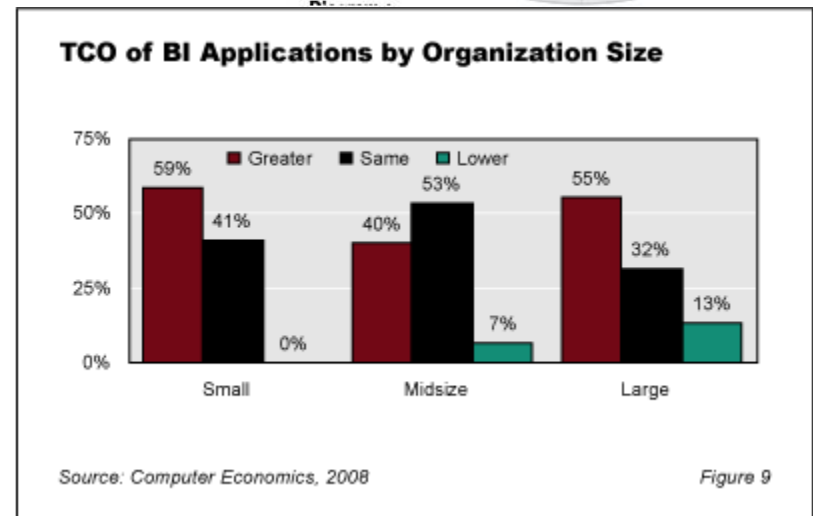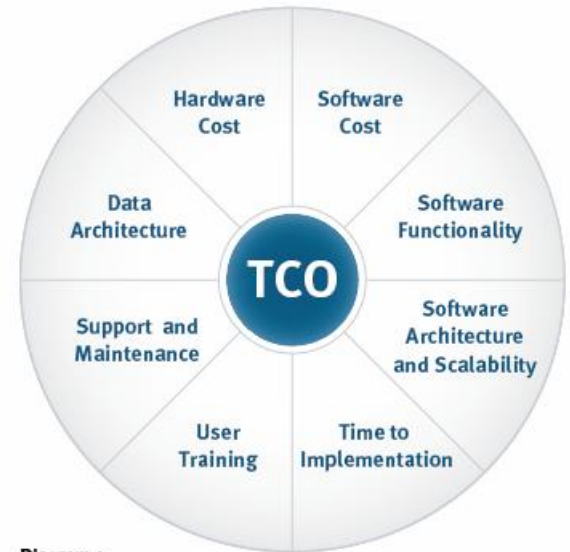
Challenges for BI Projects

"Evidence suggests that BI is used aggressively by just 15 to 20 percent of business users. For the BI sector to thrive, it needs to overcome the fact that most business users feel BI tools are hard to use," said Kurt Schlegel, research director at Gartner. "Other technologies, such as personal productivity, collaboration and Internet search have been widely adopted by mainstream users in both their business and personal lives. BI has the same opportunity for massive adoption, but it must overcome its well-earned reputation of being difficult to use."

Challenges for BI Projects

BI - Total Cost of Owners (TCO) outcomes are dismal and show that controlling BI costs is very difficult.

Often, large companies have the best TCO records because they follow best practices for project management and exercise formal cost control.

However, that is the not the case with BI systems, where midsize companies seem to have the best experiences.

Ability to keep TCO within budget by org. size

Challenges for BI Projects & OS Advantages

•A February 2008 Gartner report on self-service options for business intelligence concluded that users find BI tools difficult to use and consume.

•If you have a complex problem and user interface, only a certain amount of people (less than desired / hoped for) are going to use that tool.

•Most IT departments are overwhelmed with BI requests to meet business requirements and often have difficulty building BI applications due to a shortage in developers' skill sets.

•Lack of both end-user and developer skills creates the need to make analytical applications easier to build and consume, to overcome this skills gap.

•Open Source BI tools are allowing for greater use and consumption of BI investments because tools are easier, cheaper to use.

•Most BI platform purchases would not require multi-level signature and complicated acquisition processes

•OS model means no barrier of entry in use (not possible with proprietary model).

•OS BI most likely to be ready for consumable SaaS models allowing rapid development environment and immediate development and usage possibilities.

•Open Source BI tools are developed in industry standards programming languages.

– This allows for, as an example, Jaspersoft to have over 90,000 registered community developers and have

–Estimated 100,000+ production deployments (WW)

–Jaspersoft is second only to "Excel" in most common BI tool used

Questions?

Tell us what you think:
Complete the survey