IT-Driven Transformation Through Data-Driven Dashboards

Presented by Rita Hadden and Maria Lee
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Definition

A dashboard enables meaningful inspection of a complex system to support decision-making. A complex system can be a portfolio, a business unit, a government agency, or an industry.

Dashboards are created to support:
- strategic initiatives
- operational and business effectiveness
- analysis and self-service decision-making.
Why Now?

FOUR FACTORS CONVERGE

- Fifty Years Of Cumulative Experience

- Michael Scott Morton first articulates DSS concept at HBS.

- Significant early Data Driven DSS in production (Klaas).

- Sprague & Carlson publish seminal DSS framework.

- Howard Dressner defines BI - Business Intelligence.

- Internet commercialized & WWW catches fire.

- Data Driven Dashboards.

- WAN Bandwidth For A Typical Institution

- Vastly Improved Programmer Productivity: Hardware, Tools, Training, Patterns

- Automation Of Knowledge Work: Original Data Stored on Hard Disk

- Yanni's Law: 2x/6yrs

- PB

- 3000x

- 64x

- 100x
DTV.gov

Examples

- **DTV.gov**
  - Massive stakeholder base.

- **Billy Casper Golf**
  - Dirty data every month; clean data daily, integrate.

- **Broadband.gov**
  - Strategy creation; communicate multiple constituencies.

- **Portfolio Management**
  - Rapid training under fast growth; early problem warning, scale.
DTV.gov Key Features:

- Interactive videos, map mashups, and media toolkits to increase citizen engagement
- Transition statistics and other data to all stakeholders
- Overall status of channels transitioned to date
- Zip code search for channels, transition dates, & DTV reception coverage
- Drilldown to street level for nearest support center.
DTV.gov Key Enablers:

- Rapid development
- Diagnostic tools to enable self-service and troubleshooting
- Geographic Information System (GIS) & data analysis
- Engaging user experience (UX) design
- XML for data reuse and AJAX to improve UX.
DTV.gov Key Benefits Achieved:

- A highly successful rollout of digital TV
- Support for transparent and open government
- Stakeholders kept informed near real-time, e.g. Congress, citizens, and the Press
- Actively managed transition with widely available data
- Targeted training and grassroots partnerships.

Web 2.0 Mashup Dashboard for DTV.gov, showing search capability for further drill down.
Billy Casper Golf (BCG)

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BCG Key Features:

- Integrated view of more than 120 independent golf course operations
- Secure access for consistent data entry, reporting, and analysis
- Web-based check register to record expenses
- Additional accounting controls at corporate level.

- Secure web access enables the right people to get the information they need when they need it
- Eliminates the need to ask accountants to generate data
- Managers get data quicker
- Accountants can focus on accounting
BCG Key Enablers:

- Single relational database shared by all stakeholders
- Automated interfaces that receive data nightly
- More than 5 years of historical accounting data migrated to enterprise system
- Redefined chart of accounts for merger & acquisition (M&A) agility
- Leveraged operational data.

Data-Driven Dashboard enables:

- Operations staff to get KPI from data that is reliable and near real-time
- Proactive and sound business decision-making
BCG Key Benefits Achieved:

- Multiple stovepipes eliminated
- Workflow improved, redundancy removed, errors reduced
- Immediate feedback on inventory levels vs monthly delays
- More than 120 remote sites able to perform real–time accounting updates
- Better & quicker financial reporting & forecasting, enabling near real–time decision making
- M&A agility: no need to add accounting staff to accommodate acquisitions.

New Enterprise financial dashboard:

- Enable BCG to grow while keeping overhead manageable
- Position BCG to meet or exceed revenue and growth goals
Broadband.gov

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  Strategy creation; communicate multiple constituencies.

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Broadband Key Features:

- Policy drivers collected & shared
- Blog posts, tweeting questions, sharing/voting on strategy development
- More than 40 interactive workshops & events hosted
Broadband Key Enablers:

- Rapid development and timely update
- Social media tools for improved communication
- Search engine optimization to improve site content “findability”
- Streamlined user experience design
- Data analysis to fuse numerous disparate sources
- Platform to collect best ideas & data to increase transparency and to inform the Broadband Strategy.
Broadband Key Benefits Achieved:

• Early exposure of National Broadband Plan to stakeholders
• Widespread stakeholder participation (engaged crowdsourcing)
• Broadband initiative actively managed with contribution from the Public
• Support of transparent and open government.
Portfolio Management

Examples
Portfolio Management Key Features:

- At-a-glance project summary
- Drill-down to project details
- 6 standard project management (PM) artifacts
- Integrated development metrics
- Reports: to PMO, Sr. management, org charts.
Portfolio Management Key Enablers:

- COTS collaboration tools
- Regular, incremental releases
- Intuitive site navigation
- Standard PM artifacts leveraged: lightweight overhead to comply
- User cheat sheets, operations guide, templates
- Behaviors managed: easy access to support team.

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Risk Template
Portfolio Management Key Benefits Achieved:

• Enterprise-wide project transparency and consistency
• Key reasons for project failure minimized
• Learning and coaching tool to support change management
• Open communication to stakeholders
• Rapid rollout & iterative enhancement–cycle
• Low maintenance cost.

Key Performance Metrics:

1 month vs. 1-2 years
Transition from existing system to data-driven dashboard

6 vs. > 40
Standard PM artifacts vs. favorite formats

15 – 30 minutes vs. 3 - 4 days
Per manager, per week for enterprise status reporting

1/5 – 1/10
Total cost of ownership for enterprise project portfolio management tool compared to COTS solutions
Summary

Key Takeaways:

- **Source operational data:**
  - The source data must be a natural by-product of an existing business process. If it's not, change the business process to get it, don't add extra reporting requirements.

- **Keep focus on KPIs:**
  - Concentrate on a few simple, readily computable KPIs that most directly measure what you want to influence or communicate.

- **Manage Behavior:**
  - The transparency achieved provides a stunning opportunity for behavior modification. But, don't underestimate the effort required to institutionalize adoption, lest data quality suffers.
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