Five Best Practices for Data Visualization Success

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Nov. 19, 2013
Speakers

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5 Best Practices For Data Visualization Success
Agenda

Why is data visualization so important?
Understanding data visualization best practices

1. The importance of simplifying the presentation layer so that information can be understood and digested immediately.

2. Design consistency to ensure that the same look and feel is maintained irrespective of device or access point – i.e. desktop, tablet, and smartphone.

3. Animation of key and relevant content and data points.

4. The development of a centralized style scheme to ensure that design is consistent across the organization.

5. High levels of interaction to enable consumers to access related information in an intuitive manner.
Why Is Data Visualization So Important?

Organizations need a way for data to come alive

People digest data visually
We’ve Always Been Visualizing

Gerardus Mercator’s map of the world in 1569
Business Benefits

• Easy to consume
• Easy to share
• Easy to act upon
• Easy to see cause and effect
• Flexible delivery and design to any level of worker within the organization
• Can be designed to support transactional/operational business processes
• Supports performance management activities
Looking at 5 Data Visualization Best Practices
The Importance Of Best Practices For Dashboard Design

• Best practices can:
  – help identify what works within organizations
  – make sure that all of the requirements are met
  – address challenges that may occur
  – take advantage of success factors already in existence
1. Simplifying The Presentation Layer

- Easy to consume
- Easy to visualize
- Ability to understand metrics and action items intuitively
1. Targeting Audiences Based on Simple Access
2. Design For Intuitive Consumption

People's interaction with technology is changing. Business solutions need to reflect the type of technology being used external to work hours.
2. Design Once, Deploy Everywhere

• Design an interface that can be developed once and deployed consistently across multiple devices

• Same look, similar features that reflect device capabilities
3. Pointing Out Important Data

- Not all information is created equally
- Highlight important data
- Identify the purpose of data being analyzed and the action required
3. Animation Ideas And Relevance

- Highlights:
  - Trends
  - Action items
  - Opportunities
  - Changes

- Use:
  - Sliders
  - Visual comparisons over time
  - Parameters
4. Developing Centralized Style Schemes

• Similar to “design once, deploy everywhere”
• Important for internal branding
4. The Importance Of Design Consistency

• Easier to develop and maintain
• Easier to consume
• Enables better collaboration – all users will understand specific design characteristics
• Helps business users understand what they are looking at, evaluating, and analyzing
• Better scalability and use expansion
5. Developing High Levels Of Interactivity

• Levels will depend on many factors such as:
  – privacy
  – security
  – access levels
  – data requirements
• Dashboard effectiveness requires the ability to “play” with data
• Dashboard represents the first access point to information visibility
5. Building Interactivity To Suit User Ability

- Levels of interactivity depend on user role
- Super users/business analysts may need access to build their own dashboards, access data, create calculations
- Casual business users need to be able to consume data more easily
- Some only need to view
Putting This Into Practice
Making Sure Components Fit

• It is important to make sure that each best practice fits within the overall dashboard goals of the organization
• Look at technology, processes, and current gaps
• Understand both business and technical requirements
• Make sure that resources exist for both development and support
Integrated Design Principles

Goals

Expectations

Project Management
Engaging Customers with Data Visualizations
Drivers for Customer Facing Applications

**Grow Revenues**

“We want to grow business by up-selling additional products, like interactive dashboards.”

**Maintain Loyalty**

“We need clients to love doing business with us…”

“We know clients are leaving to competitors because our offerings are out dated”

**Competitive Advantage**

“Our application is everything… we need to unlock its information…”

“We are far behind our competitors and must catch up”

**Improve Efficiency**

“Our processes must remain flexible in order to address new opportunities”
Personalized Analytics and Insights to Customers, Partners and Employees

The Old Way to “Personalize” Online Services

The Modern Way: Personalized Analytics to Any Device
Changing Landscape of IT Applications

More diverse data sources
   * Big Data, Cloud, social media

Increasing consumption on touch devices
   * Tablets and smart phones

Social Media
   * Influence spreads like wildfire

Faster development cycles
   * Faster time to value for applications
   * Increase in simpler apps for larger audiences

Application deployment platforms more readily available
   * Public/private/hybrid clouds
   * SaaS and PaaS
Consumer Applications Set the Trend for Business Applications

User Expectations Have Changed

Sales Compensation
Finance and Billing
Human Resources
Product Sales
Expenses
Profitability Analysis
Revenue Reporting
Fraud Reporting
What will the Future of Apps Look Like?

Integrate All Data Sources

HTML5-Based Animations

Content Will Be Interactive

Content Will Offer Self Service

Dashboards Will Reach Consumers
New Generation of Data Sources and Layouts
Changing the nature of Transactional Applications

Blend big data, internet and traditional sources

Delivered to web, mobile, phone, print and point of sale
Actuate’s scalable solutions save time and improve your brand experience by delivering personalized insights to customers, partners and employees.

Intuitive and visually-engaging self service

Unique insights from multiple data sources

Security across a high volume of users and devices

Proven scalability to millions of users

Actuate applications have delivered personalized insights to over 200 million customers, partners and employees.
Location Analytics with HTML5
Location Analytics with HTML5

Norfolk International: 4642 originating flights
Content will be Interactive
Content Will Offer Simple Self Service
Content As a Dashboard User Experience
Secure Content When You Want It

**All Data Secured**
- Information in context for users
- Multiple, complex sources

**Any Desired Format**
- HTML5 based graphics
- HTML & embeddable JavaScript
- Document export functions for PDF & MS Office

**Easily Maintained**
- Design-driven architecture
- Modular & reusable
- Portable across open source, SaaS & on-premise deployments
Actuate at a Glance

Analytics

Interactive Content

Dashboards

Self-Service
Thank you.
Questions?
Contact Information

If you have further questions or comments:

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