

15 out of 17 sectors
 in the US have more data stored per
 company than the US Library of Congress*

40% projected growth in global
 data generated per year vs.
5% growth in IT spending*

30 billion
 pieces of content shared on
 facebook each month*

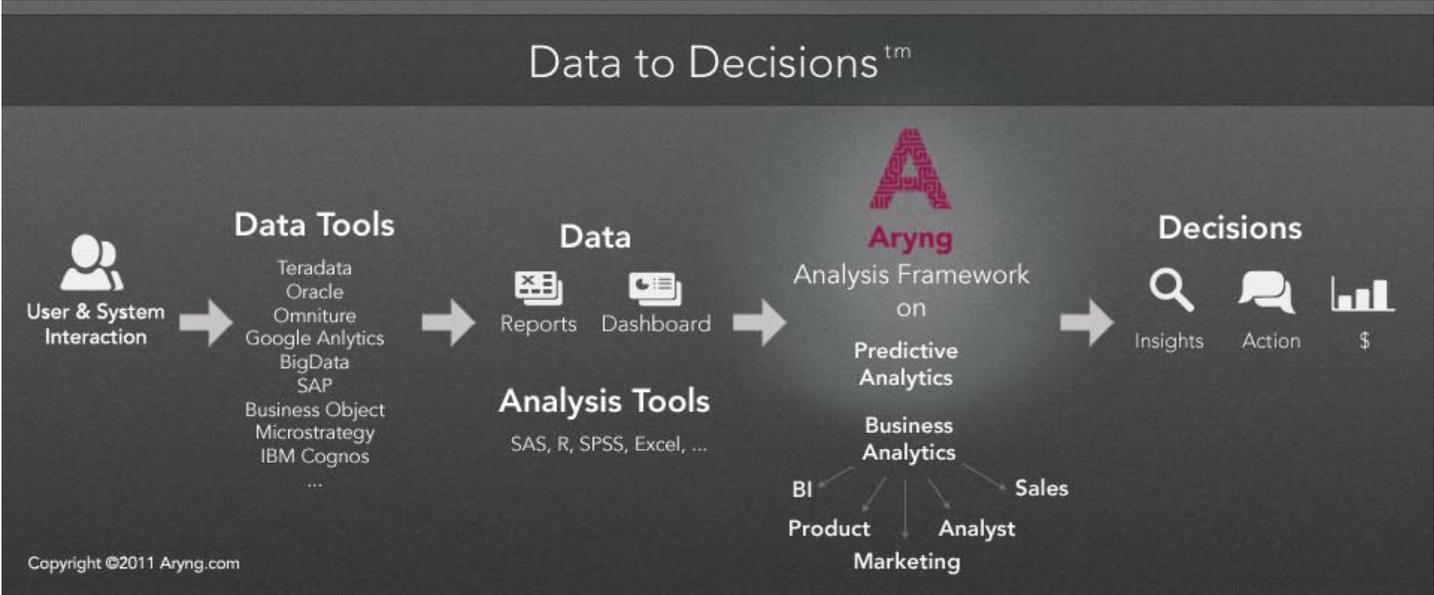


60% potential increase in
 retailer's operating margins
 possible with Big Data*

140,000 to 190,000
 more deep analytical talent positions, and

1.5 million
 more data-savvy managers needed to take
 full advantage of Big Data in the US*

**Aryng Workshops
 directly addresses this
 data deluge!**



*Source McKinsey & Company, McKinsey Global Institute, May 2011
 Big Data: The next frontier for innovation, competition, and productivity

Aryng's Level 3 "Data to Decisions™" Intensives

DTD 302: Hands-On Test-and-Learn Workshop

Testimonial from past attendees:

"I used the framework yesterday and it worked like a charm! Thanks Aryng!"

Luke S., Partner Solutions Sales, **Google**

"I feel redeemed!"

*The training content and the quality was excellent. The case studies and real life business examples accompanying every theoretical concept makes understanding so much easier. The interactive learning environment makes this program all the more enjoyable while learning from others experiences as well. **This course has given me totally new perspective, boosted confidence, Highly recommended!!**"*

Jignesh S., Senior Data Analyst, **PayPal**

INTENDED AUDIENCE

- **Analysts/ Data Scientist:** Marketing analysts, web analysts, product analysts, data scientist, financial analysts and business analysts, data analysts looking to learn effective test design and analysis.
- **Technology experts:** Engineers, BI analyst, developers, DBAs, data warehouseers, and consultants who wish to extend their expertise to effective test-design and rollout

Background Required: Participants must have attended **Aryng's DTD 102: "Business Impact through Analytics" Workshop or equivalent**

WORKSHOP DESCRIPTION

Today all leading organizations are utilizing test-and-learn methodology to quickly test hypothesis around product and feature usage, learning from the behavior observed and rolling out the winner. Effective Test-and-learn delivers competitive advantage to the organization by rapid proto-typing and quick low risk tests before a full roll out.

This workshop is designed especially for **Analysts, Data Scientist and Engineers**, looking to increase the impact of their work and get more conclusive read from their tests and **business professionals**, looking to leverage test results for smarter decision making.

Hand's On Test-and-Learn: On Day 1, we will take you on a journey that begins with a **business question**, proceeds to test plan and design, proper data collection, **deriving insights** from the test and concludes by making an impactful presentation. The agenda covers approaches to communicate **analytical findings**,

delivering **powerful presentations**, and best practices to roll out effective tests with definitive results. Examples, **hands-on exercises**, **case study** and templates empower attendees to return to their organizations with the processes and **toolkit** that ensures they are ready to approach any test-and-learn problem and drive towards impact.

Case Simulation: On Day 2, we review the testing framework to get from inquiry to impact and attendees **work in groups to solve a real life test case** using the framework learnt. The case starts with a business problem and ends with **attendees presenting their executive deck** laden with recommendations and insights in a span of 1-day! We also spice the day with **role plays** for effective collaboration in cross-functional organization.

Topics covered include:

1. **Why Test:** Understanding the goals of testing
2. **5-Steps of effective Test-and-learn:** leveraging BEDIR framework
 - I. **Business Question**
 - II. **Experiment Design & Plan:**
 - Success Metrics, hypotheses, success criteria, treatments to be tested, segments to be included in test
 - Full factorial, fractional factorial, Taguchi designs
 - Main effects, interaction effects
 - Sample size calculation, and strategies for managing sample size
 - Statistical significance, including non-normal variables
 - Assessing feasibility of the design. Redesign if needed.
 - III. **Data Collection**
 - Determine length of test and time of launch
 - Ensuring equivalence of test and control
 - IV. **Post Launch Analysis**
 - Behavioral Analysis: understanding change in behavior.
 - Estimating impact and testing for statistical significance of the impact
 - Looking for outliers and strategies for dealing with outliers
 - Looking for unintended consequences
 - Translating results in business terms
 - V. **Recommendations**
 - Visualizing and explaining complex statistical concepts to non-technical audience
 - Communicate and Present effectively (Persuasion by numbers!)
3. **Typical challenges and solution:** Challenges and solve in testing based on our experience in a variety of industries.
4. **Advanced Topics:**
 - a. Using test results to develop predictive models for likelihood to respond for future tests
 - b. Using test results to build predictive model for targeting roll out.

Software/Hardware: Attendees are asked to come with their own laptop with Microsoft Excel or equivalent software for hands-on group exercises and case simulation.

KEY TAKEAWAYS

1. **Why Test?**
2. **How to design tests for increasing the likely-hood to get conclusive results?**
3. **What to watch for?**

Schedule Day1- Day2

- Breakfast and Networking starts at 8:30am
- Workshop starts at 9:00am
- Morning Coffee Break at 10:30am - 10:45am
- Lunch provided at 12:15 – 1:00pm
- Afternoon Coffee Break at 2:30pm - 2:45pm
- End of the Workshop: 4:30pm

Attendees receive:

- A course materials folder
- An official Certificate of Completion (at the conclusion of the workshop)
- Templates: Data to Decision Templates, Analysis Plan, Project Plan, Effective Deck Template

FEES

\$1599 (for Complete Hands-on Business Analytics and Testing – 5 days course)

\$799 (for Hands-on Test-and-Learn – 2 days course)

DTD 302 INSTRUCTORS

Mukul Patki, Senior Trainer, Aryng

Mukul is a senior analytics professional with 8+ years of experience driving impact in the organization through analytics. He currently leads business analytics for PayPal's Latin American business. Prior to this he has held various analytics roles at PayPal, Knowledge Based Systems, and IBM TJ Watson Research Center. Mukul has a PhD in "Industrial Engineering and Management" with a focus on quality and applied statistics.

Piyanka Jain, President & CEO, Aryng.com

Piyanka, founder of Aryng - a premier analytics training and consulting company, is a well-regarded industry thought leader in analytics, keynoting at business and analytics conferences including Predictive Analytics World, Data Science Summit, TDWI Big Data Conference, Google Analytics User Conference, Business Performance conference on data driven decision making in an organization.

With her 15 years of experience in analytics, she has had 100M+ demonstrated impact on business. Her prior roles include the head of NA Business Analytics at PayPal and senior marketing analytics position with Adobe.

Detailed profile: <http://www.linkedin.com/in/piyanka>

Forbes blog post: <http://blogs.forbes.com/piyankajain/>

ABOUT ARYNG

Aryng is a premier analytics training and consulting company, based in the San Francisco Bay Area; a unique partnership of analytics professionals, with decades of experience in Fortune 500 companies - conducting analytics, building and managing Business Intelligence and Analytics teams, delivering cumulative results in the \$100s of millions.