

Technology: The Driving Force Behind Data-Driven Decision Making

MACUL 2010

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TODAY'S GOAL

- To learn how technology can play an integral role in various facets of data-driven decision making.
 - District
 - School/Classroom

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WELCOME

- Ladd M Skelly
 - eLearning
 - Houghton Mifflin Harcourt
 - ladd.skelly@hmhpub.com
- Ray Rodriguez
 - Riverside Publishing
 - Houghton Mifflin Harcourt
 - raymundo.rodriguez@hmhpub.com

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HISTORY OF TECH INTEGRATION: 2000



HISTORY OF TECH INTEGRATION: 2002



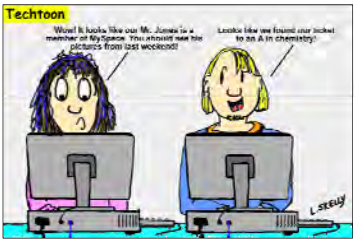
HISTORY OF TECH INTEGRATION: 2004



HISTORY OF TECH INTEGRATION: 2005



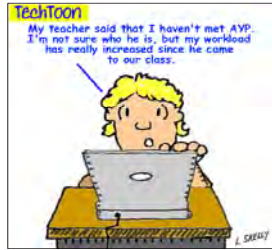
HISTORY OF TECH INTEGRATION: 2007



HISTORY OF TECH INTEGRATION: 2009



WHAT HAS REMAINED CONSTANT?



WHAT IS D³M AS A SYSTEM?

"Data-driven decision-making (DDDM) is a system of teaching and management practices that gets better information about students into the hands of classroom teachers."

-Dr. Scott McLeod

WHAT IS D³M AS A PROCESS?

- DDDM is a process that helps teachers and schools to:
 - Identify student achievement needs.
 - Ask good questions about student results.
 - Find the data to answer these questions.
 - Analyze the data to find root causes.
 - Implement action plans to address root causes.
 - Monitor and revise action plans as needed.

DATA-DRIVEN DECISION MAKING CYCLE

- Starts with a simple model

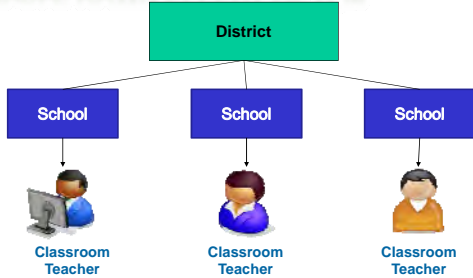


DATA TRANSPARENCY

- **School Matters**
 - <http://www.schoolmatters.com>
- **Strengths of this site**
 - Clear charts and graphs
 - Provides AYP data




TRICKLE DOWN EFFECT OF D³M





The District
From the Top Down




RATIONALE

Research shows that continuous school improvement is successful when there is instructional coherence to the curriculum and standards, a shared vision across all participants in the learning community, and is supported by data driven decision making.

ASCD 2008





“Data needs to be readily accessible and easy to share”

DuFour & DuFour, 2007 @ Newport Mesa USD Administrator meeting

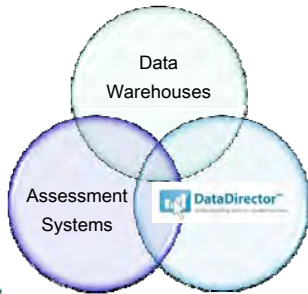



LAY THE FOUNDATION

- Starts with the district
 - Eliminate data silos
 - Provide access to all relevant data
 - EASY access to reports
 - Assessment
 - High quality content
 - Ongoing benchmark testing
 - Build a DDDM culture
 - Professional development and support
 - Opportunity for discussion/reflection



ELIMINATE DATA SILOS




BUILDING A DDDM CULTURE

- Build a data infrastructure
- Build a professional learning community
 - Leadership teams
 - Data teams
- Collaborate, communicate and promote
- Provide professional development



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Education is learning what you didn't even know you didn't know.



Daniel J. Boorstin



The School

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IN A DATA DRIVEN SCHOOL

Data-driven decision making...

- ✓ Allows administrators, teachers and students easy access to data
- ✓ Reveals patterns and correlations in data
- ✓ Provides real-time intervention
- ✓ Ensures that all students succeed

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IN A DATA DRIVEN SCHOOL

Data-driven decision making...

- ✓ Focuses on learning, student achievement and outcomes
- ✓ Use data to transform teaching and learning
- ✓ Inform school decisions-about books, schedules, grouping, professional development

DATA MANAGEMENT AND ASSESSMENT SYSTEM

- Giving access to teachers



WHAT IS WEB 2.0?



BOLANGKOTAN MIPPULUH BAROKOTI

HOW DO THEY RELATE?



Communicate **1**



Collaborate **2**



Share **3**




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BOLANGKOTAN MIPPULUH BAROKOTI

"The most promising strategy for sustained, substantial school improvement is developing the ability of school personnel to function as professional learning communities."

-Richard DuFour & Robert Eaker,
Professional Learning Communities at Work (1998)



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BOLANGKOTAN MIPPULUH BAROKOTI

COMMUNICATION AND COLLABORATION

- Ning
 - <http://www.ning.com>



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COMMUNICATION AND COLLABORATION

- Airtet
 - <http://www.airset.com>



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The Classroom

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Giving Students Access

Techtoon

This year we are going to the computer lab each day to help me make AYP.

I just got my own laptop to help me.

I got a new no. 2 pencil?



SKELY

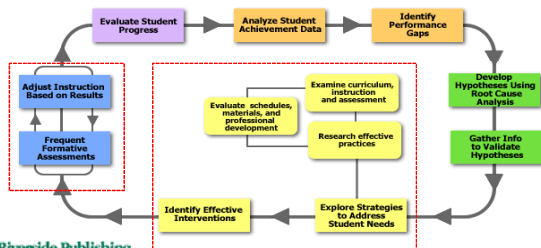
SIMPLIFYING THE D³M PROCESS

- Starts with a simple question:
 - Which data, well analyzed, can help us improve teaching and learning?
- Focus on the needs of the teachers
 - Their use of data has the most direct impact on student performance.

-Mike Schmoker

UNDERSTANDING D³M

- Expanding the cycle



TOOLS OF THE CLASSROOM

- Facilitate the DDDM processes
 - Data management system
 - Assessment tools
 - Online resources in DDDM
 - Classroom productivity tools
 - Communication and collaboration tools
 - Integrated learning systems

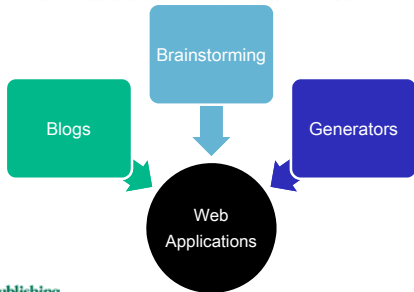


BEST PRACTICES: INTERVENTIONS

- The George Lucas Foundation: Edutopia
 - <http://www.edutopia.org/>
 - Assessments
 - Standards-based projects



TYPES OF WEB APPLICATIONS



WEB APPLICATIONS

- Writeboard.com
 - <http://www.writeboard.com>
- Bubbl.us
 - <http://bubbl.us>
- Picnik.com
 - <http://www.picnik.com>
- Awesome Highlighter
 - <http://www.awesomehighlighter.com/>



WEB-BASED SPACE

- Writeboard
 - <http://www.writeboard.com>
- Primary Pad
 - <http://primarypad.com>



Primary Pad is a web-based word processor designed for schools that allows pupils and teachers to work together in real-time.

Create public pad
(No sign-up, state-wide instances)

Sign up for a Pro account or Login to your account.

ONLINE COLLABORATION TOOLS

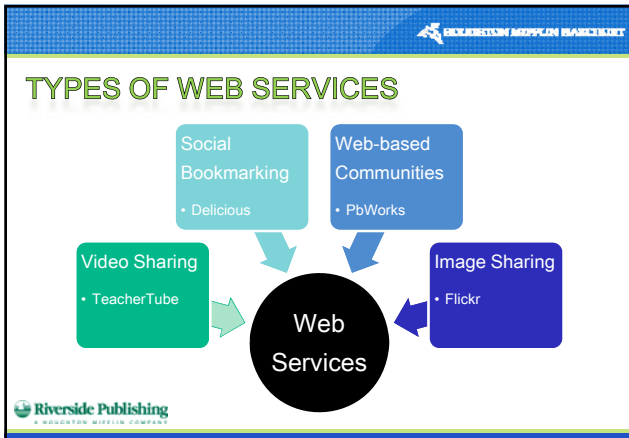
- Google Docs
 - <https://www.google.com/accounts/ServiceLogin?service=writely>



SOCIAL NETWORKING

- Twitter
 - <http://www.twitter.com>
- Twiducate.com (for Schools)
 - <http://www.twiducate.com/>





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ONLINE COMMUNITIES

- Teacher Tube
 - www.teachertube.com
 - Online community for sharing instructional videos

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COLLABORATION

- Flickr
 - Online photo management and sharing application
 - <http://www.flickr.com/>
- Searching (flickrStorm)
 - <http://www.zoo-m.com/flickr-storm/>
- Bubblr (comic strips)
 - <http://www.pimpumpum.net/bubblr/>

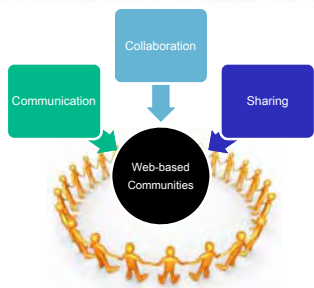
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ONLINE CURRICULUM

- HippoCampus
 - High school level
 - <http://www.hippocampus.org/>



WEB-BASED COMMUNITIES



PBWORKS

NING Create a Ning Network

AirSet Cloud Computers

WIKI

- Pbworks
 - <http://pbworks.com/>
 - What is a wiki?
 - <http://www.commoncraft.com/>



ASSESSMENT

*"When the cook tastes the soup,
that's formative. When the guests
taste it, that's summative!"*
- Robert Stake


FORMATIVE ASSESSMENT

“Links teaching, learning and assessment for changing conceptions that include:

- Creating/capitalizing on teachable moments and
- Providing immediate feedback on how to improve understanding.”

Richard Shavelson 2005

TYPES OF ASSESSMENT TOOLS

Observations	Authentic assessment	Exit cards
Self and peer assessment	Interviews	

TEACHER TOOLS

- 4Teachers.org
 - www.4teachers.org



FORMATIVE ASSESSMENT

- Yacapaca
 - <http://yacapaca.com/>



IMPORTANCE OF PD

- "...most teachers and other instructional support staff are unprepared to adopt data-driven approaches without extensive professional development and training."

Robert Marzano

PROFESSIONAL DEVELOPMENT

- Product Training
 - Data management
 - Assessment system
- Professional Development
 - D³M
 - Tech Integration (based on data)
- Online Support
 - Best practices
 - Research



LEARNING MANAGEMENT SYSTEMS

- Edu 2.0
 - <http://www.edu20.org/home>
- Moodle
 - <http://moodle.org/>
- Xerceo
 - <http://www.xerceo.com>
- LMS Search Engine
 - Capterra
 - <http://www.capterra.com/learning-management-system-software>



TRAINING (LATEST TECHNOLOGIES)

- Teacher Training Videos
 - <http://www.teachertrainingvideos.com/>
 - Videos for teachers



THE BUZZ ABOUT D³M

- Scott McLeod
 - [Data-Driven Teachers Article](#) (White Paper)
McLeod, S. (2005, June). Data-driven teachers. Retrieved from Microsoft Innovative Teachers Thought Leaders at <http://www.microsoft.com/education/ThoughtLeadersDDDM.aspx>.
- Mike Schmoker
 - Article: [First Things First: Demystifying Data Analysis](#)

THANKS FOR JOINING US!

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 - Classroom Connect
 - <http://www.hmco.com>
 - Riverside Publishing
 - http://www.hmco.com/divisions/riverside_publishing.html
- Session Cartoons
 - Ladd's TechToon: <http://techttoon.tripod.com>
