Yahoo!
Web site optimization using a bucket testing framework built into web analytics

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Ashish Vikram is Vice President - Engineering, User Data and Analytics (UDA) at Yahoo!. UDA is the group that analyzes Yahoo!'s customer data to provide deep insights into user behavior, which is then leveraged to personalize digital content and enhance Yahoo!'s products.

Ashish is a software industry veteran with over 20 years of hands-on design and development experience. He worked with Rational Software for 15 years both in the US and India, a role in which he set up Rational's Software Development Center in India and grew it into a highly productive lab with complete responsibility for several of Rational's Software Engineering products, including the flagship Rational Rose. Ashish also led the team through the transition, subsequent to IBM's acquisition of Rational Software.

He went on to play a crucial role in creating highly productive software evelopment centers in Bangalore for two more startups, OAT Systems and Kalido. OAT was a pioneer and leader in the RFID space, while Kalido is a leading provider of data driven governance solutions.

Ashish holds a B. Tech. in Electrical and Electronics Engineering from the Indian Institute of Technology, Delhi and an M.S. in Computer Science from Purdue University, Indiana.

Big Data Statistics at Yahoo!

- 500 Peta Bytes of Data

- 50 Tera Bytes of Data added everyday

- 700 Million Users

- Created Hadoop to help deal with Big Data and open sourced it

Web Analytics – 7 days traffic

Summary for █████████

| Type any id or name | Search | Share ▾ | Action ▾ | ? |

⏩ ~network (0) |▾   Day ▾ ◀ ████████ ▶ Apply Cancel

Hotlist ~network (Hotlist Children: included)   Space ID: 0   🔍 Lookup / Search

User login state: ❓ Total (Users were either logged in or had browser cookies enabled)   ⚙ Report Settings ❓

All Metric Snapshot

Page Views ❓
4,106,931,241 Views
▲ 30.7%

Unique Users ❓
193,020,568 Unique Users
▲ 10.03%

Time Spent ❓
5,868,707,129.62 Mins
▲ 32.83%

Unique Cookies ❓
272,504,994 Cookies
▲ 15.64%

Sessions ❓
512,157,400 Sessions
▲ 20.37%

Page Views / Unique User ❓
21.28 Views / Unique User
▲ 18.79%

Time Spent - Breakdown

Hotlist Children Breakdown: Time Spent

Hotlist Children	Time Spent	%Change
site (2718085)	53.72%	▲ 27.68%
intl (7825331)	38.28%	▲ 41.27%
yahoo (2766678)	7.95%	▲ 30.98%

View Report · Top | Bottom

Country Breakdown: Time Spent

Country	Time Spent	%Change
United States	45.11%	▲ 29.01%
Taiwan	9.73%	▲ 32.56%
United Kingdom	4.12%	▲ 32.87%
India	2.75%	▲ 22.6%
Hong Kong	2.19%	▲ 44.43%

View Report · Top | Bottom

Age Breakdown: Time Spent

Age	Time Spent	%Change
Not Set	29.61%	▲ 12.51%
35-44	16.88%	▲ 59.57%
45-54	12.59%	▲ 48.3%
30-34	10.24%	▲ 56.83%
25-29	8.45%	▲ 45.15%

View Report · Top | Bottom

Gender Breakdown: Time Spent

Gender	Time Spent	%Change
Male	37.89%	▲ 41.86%
Female	32.14%	▲ 46.34%
Not Set	29.61%	▲ 12.51%
Unknown	0.37%	▲ 23.14%

View Report · Top | Bottom

Overview

Test the *effect of product changes on a sample set of users by before launching to the entire population

Measure *reach, engagement and monetization metrics on different versions of the product pages

Reduce risk

Test on smaller scale

Set realistic referral expectations

Forecast impact of product changes

Forecast impact of product changes

Statistical data

Statistical data

Set realistic expectations

Why Experiment?

Data substantiated decisions

Statistical data

Quantify user reaction

Test on smaller scale

Reduce risk   Test on smaller scale

Forecast impact of product changes

Quantify user reaction

Workflow: Media Business Case

The media team desires to test the effect on user engagement for different layouts of a webpage before rolling it out to the entire audience…

HYPOTHESIS The new layout is more engaging than the existing design…

Workflow: Setup, Targeting & Reporting
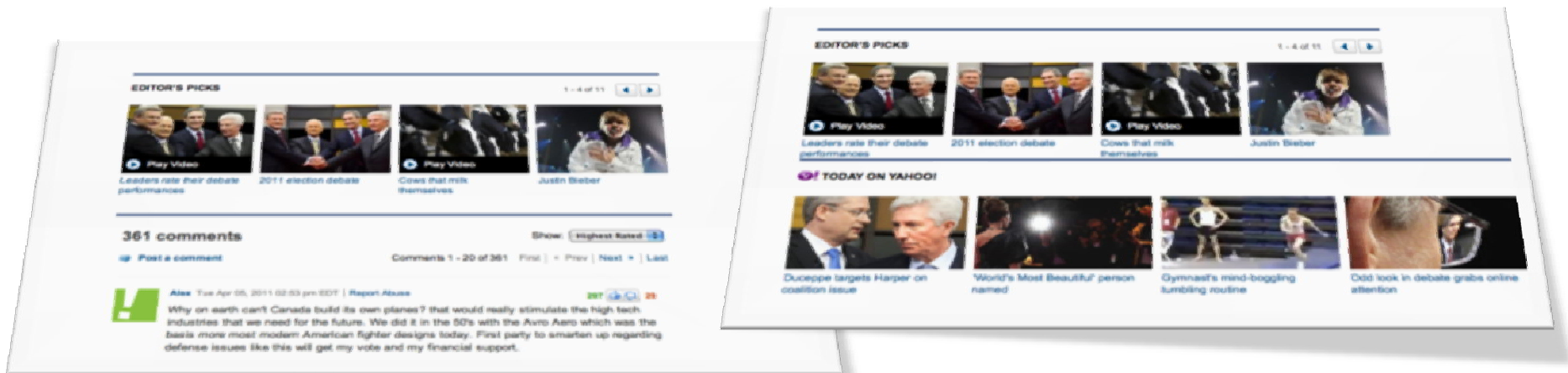
EXPERIMENTATION WORKFLOW
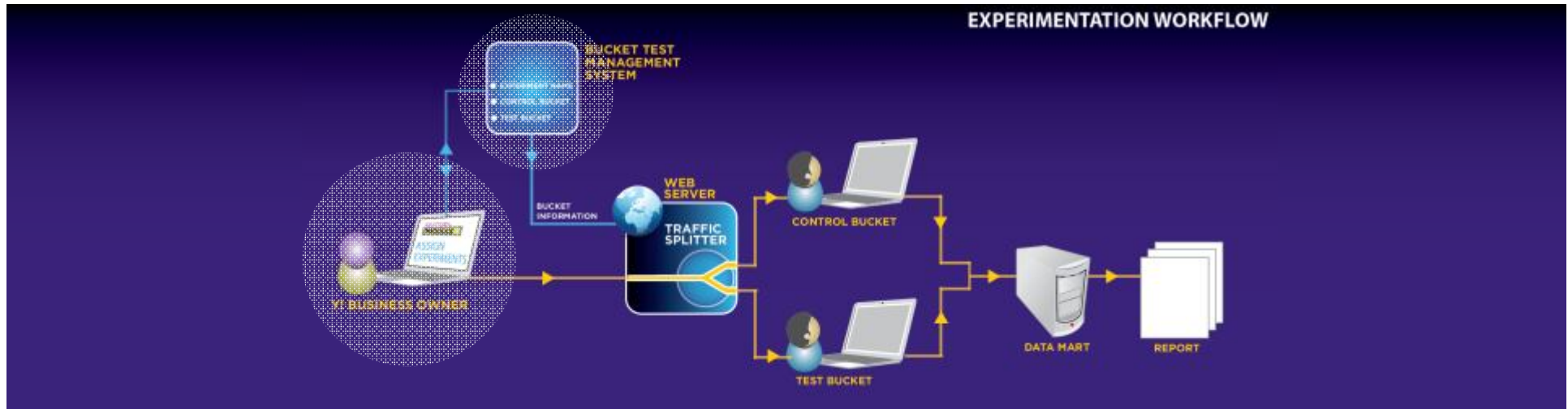
SETUP
The Editor sets up an experiment using the **Experiment Management System (EXP)**

Creating a new Experiment

Workflow: Setup, Targeting & Reporting

EXPERIMENTATION WORKFLOW
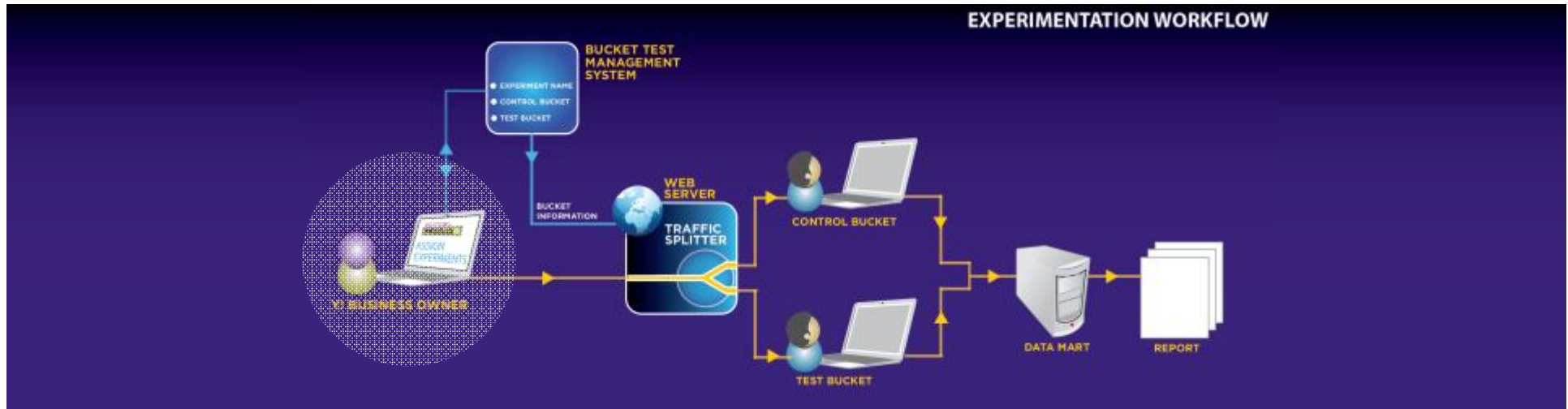
SETUP
The Editor assigns the experiment from the **Publisher Desktop (PD2)**

Workflow: Setup, Targeting & Reporting

EXPERIMENTATION WORKFLOW
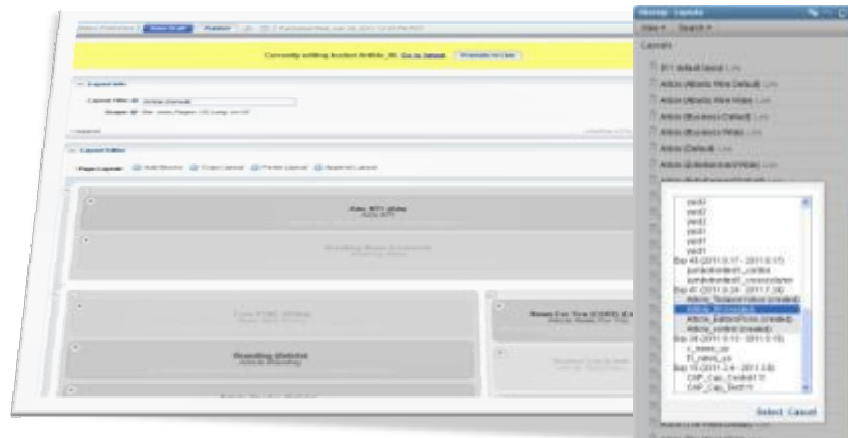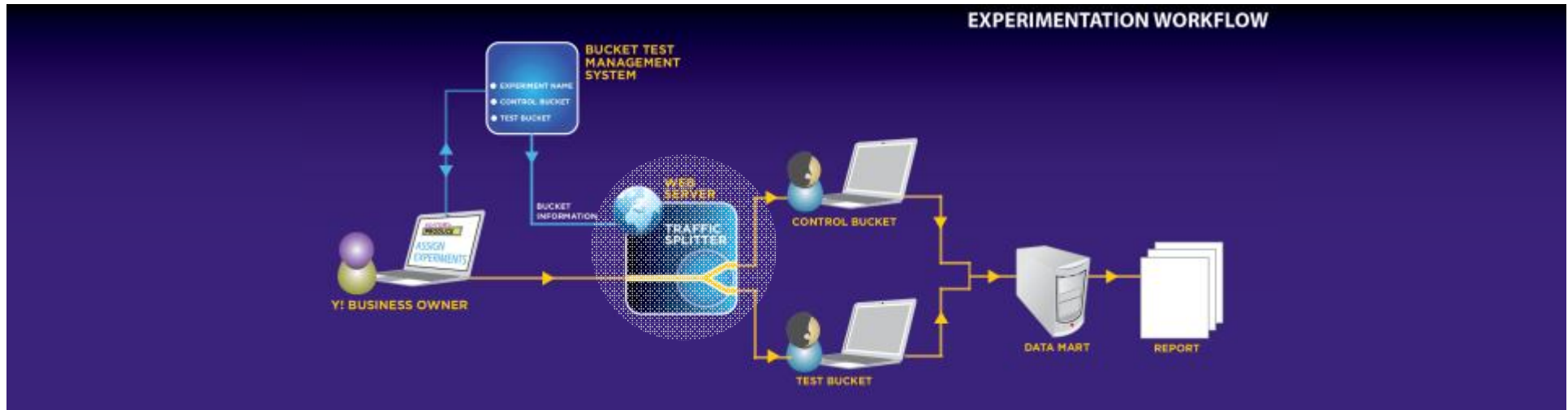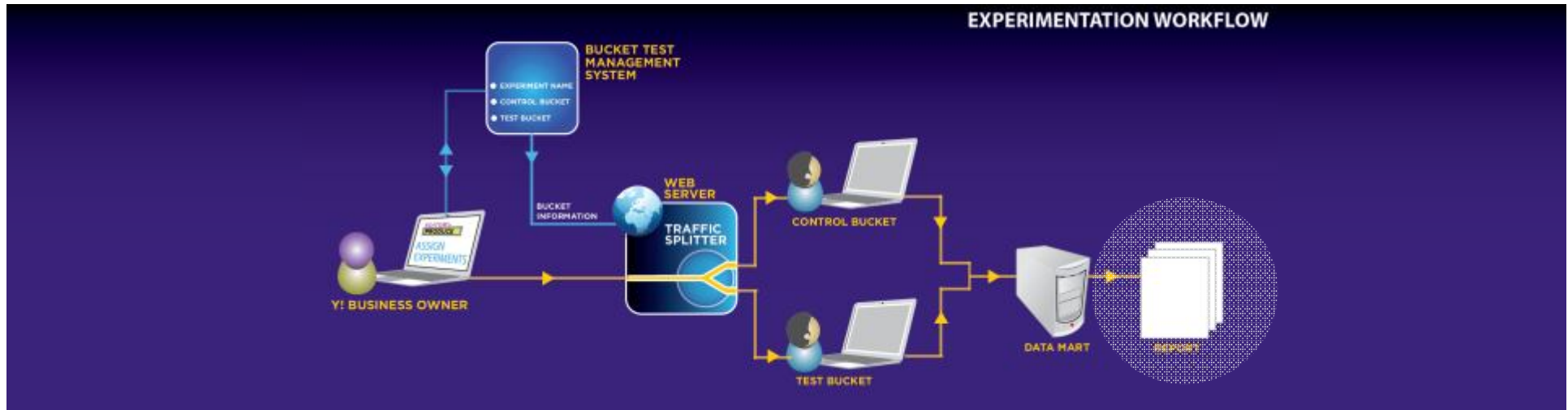
TARGETING
The Traffic Splitter then creates **control** and **test group** from all visitors of the page

Workflow: Setup, Targeting & Reporting

REPORTING
Microstrategy Reports with detailed findings from the test are made available to the Media team
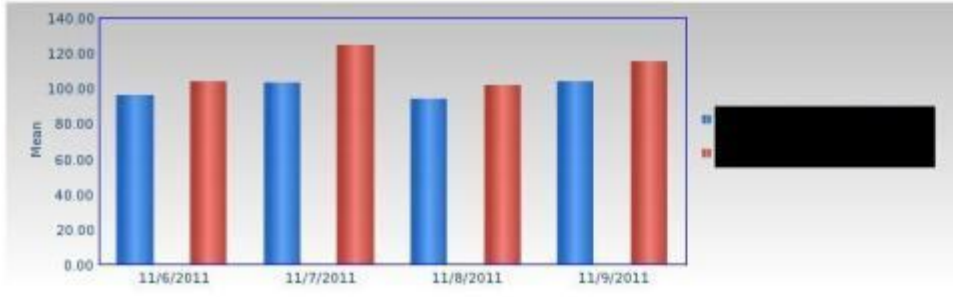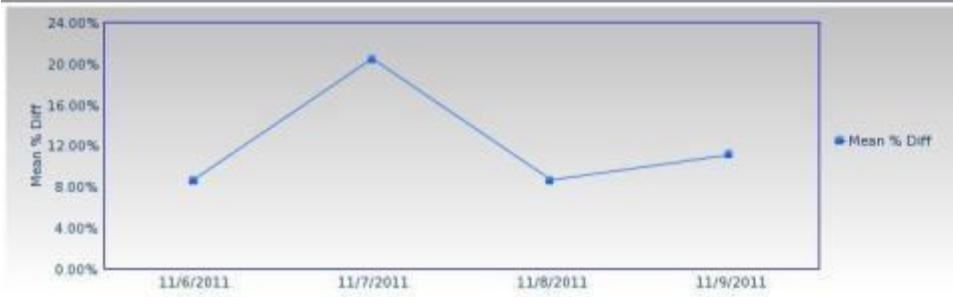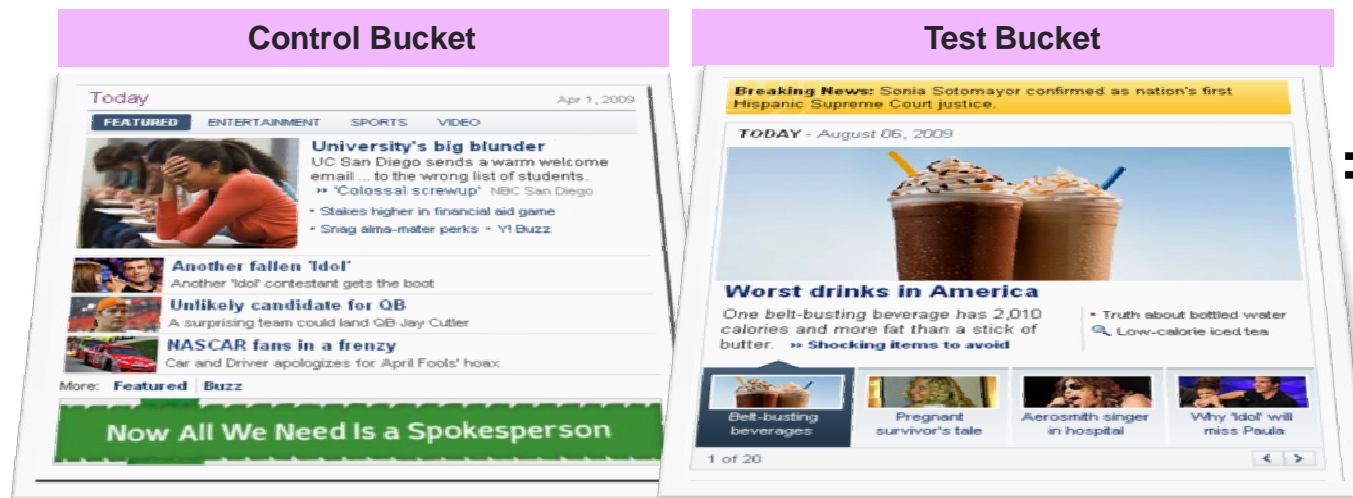
Results Summary

Time Spent – control Vs Test

Success Stories : Wider Today Module Headline Image

Front page team desires to test the effect on user engagement on the Today module content, as a result of widening the headline image

Control group has a narrow headline image and the test group has a wider headline image

Control Bucket

Test Bucket

=

The **CTR** of the Today module **increased** as a result of widening the headline image

Success Stories: Wider Search Box

Front page wants to test the effect on user engagement on Search link as a result of widening the search box.

Control group has a regular search box the test group has a wider version of search box

Control Bucket

Test Bucket

= A wider and pronounced search box led to an **increase in the CTR** of the search link.

Thank You!

Ashish Vikram
VP Engineering, UDA

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