

# **MMM006-340161 Web Analytics**

## **Programme: Data Engineering**



JACOBS  
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Lecture 5: Clickstream Analysis

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# Objectives

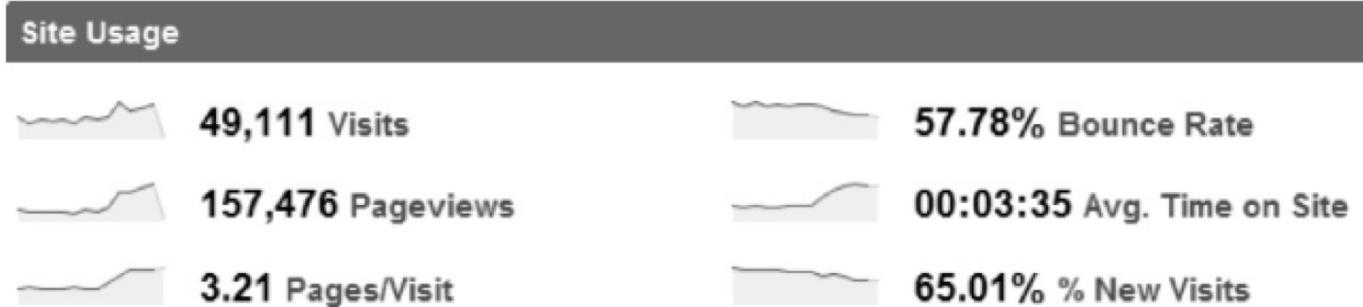
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- Review clickstream analysis approaches

# Core metrics

Web analytics journey starts with six basic metrics

- **visits** – represents number of sessions on your website
- **bounce rate** – no. of users who left instantly
- **page views** – how many pages were requested
- **pages/ visit** – number of pages requested in each visit
- **average time on site** – how long people stayed on your website
- **% new visits** – number of sessions from first time visitors



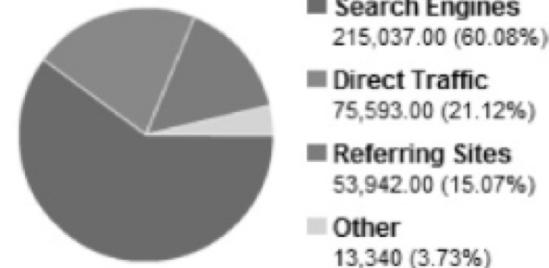
Source: (Kaushik, A., 2010)

# Traffic source analysis

Understand where your visitors come from

All traffic sources sent a total of 357,912 visits

-  **21.12%** Direct Traffic
-  **15.07%** Referring Sites
-  **60.08%** Search Engines



Source: (Kaushik, A., 2010)

Other: could refer to banner ads, email campaigns, social media campaigns, affiliates etc.

## Direct traffic

- low direct traffic number could signal problems with retention
- could be failing to truly connect with customers

## Referral traffic

- establish marketing relationship for solid sites

## Search engine traffic

- often accounts for at least a third of traffic, often half of the traffic

## Other traffic

- contains acquisition strategies
- should be small because you spent money on these to get traffic

# Traffic source analysis

Next steps:

- are you getting better or worse over time?
- segment your data e.g., segment search engine traffic

**Search sent 84,120 total visits via 11,068 keywords**

Show: total | paid | non-paid



**Search sent 65,678 paid visits via 114 keywords**

Show: total | paid | non-paid



**Search sent 18,442 non-paid visits via 10,968 keywords**

Show: total | paid | non-paid



**Source: (Kaushik, A., 2010)**

Drill down to specific websites that sent you traffic

- keywords/ key phrases sending you traffic

Fixing non-performing pages:

- examine site's top entry pages and bounce rate for each
- analyze the top 25 keywords driving traffic to your website and their bounce rates

**Fix pages with high bounce rate!**

Do experimentation and testing

- select pages to fix and do A/ B testing
- improve pages based on customer feedback

# Measuring outcomes by traffic sources

Site Usage		Goal Conversion						Views:					
Visits <b>29,111</b> % of Site Total: 100.00%	(?)	Goal1 Conversion Rate <b>1.20%</b> Site Avg: 1.20% (0.00%)	(?)	Goal2 Conversion Rate <b>2.17%</b> Site Avg: 2.17% (0.00%)	(?)	Goal3 Conversion Rate <b>0.66%</b> Site Avg: 0.66% (0.00%)	(?)	Goal4 Conversion Rate <b>0.96%</b> Site Avg: 0.96% (0.00%)	(?)	Goal Conversion Rate <b>4.99%</b> Site Avg: 4.99% (0.00%)	(?)	Per Visit Goal Value <b>\$0.50</b> Site Avg: \$0.50 (0.00%)	(?)
	Source			Visits ↓	Goal1 Conversion Rate	Goal2 Conversion Rate	Goal3 Conversion Rate	Goal4 Conversion Rate	Goal Conversion Rate	Per Visit Goal Value			
1.	google			<b>10,809</b>	1.31%	2.07%	0.80%	0.70%	4.89%	\$0.50			
2.	(direct)			<b>7,597</b>	1.26%	2.36%	0.46%	1.09%	5.17%	\$0.50			
3.	google.com			<b>1,575</b>	1.08%	1.21%	0.95%	0.70%	3.94%	\$0.46			
4.	images.google.com			<b>583</b>	0.00%	0.00%	0.17%	0.00%	0.17%	\$0.03			
5.	twitter.com			<b>560</b>	0.18%	3.21%	1.25%	0.89%	5.54%	\$0.56			
6.	stumbleupon.com			<b>469</b>	0.00%	0.00%	0.00%	0.00%	0.00%	\$0.00			
7.	analytics.blogspot.com			<b>453</b>	1.32%	2.65%	0.66%	0.66%	5.30%	\$0.50			
8.	yahoo			<b>389</b>	0.26%	1.03%	0.77%	0.51%	2.57%	\$0.31			
9.	wilsonweb.com			<b>223</b>	0.90%	6.28%	0.45%	0.45%	8.07%	\$0.56			
10.	googleblog.blogspot.com			<b>195</b>	1.54%	1.03%	0.51%	1.03%	4.10%	\$0.46			

Source: (Kaushik, A., 2010)

Report represents **source of traffic** and **outcomes**

Segmentation is a key strategy in clickstream analysis

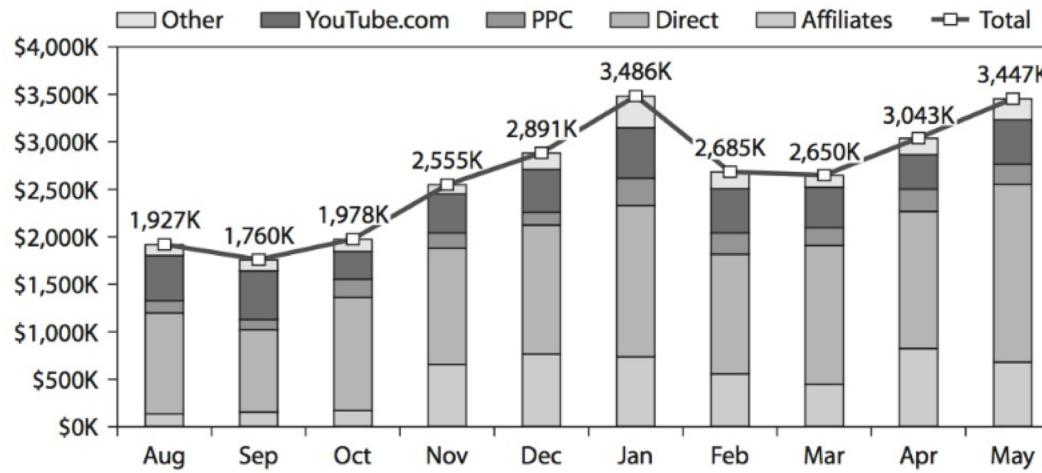
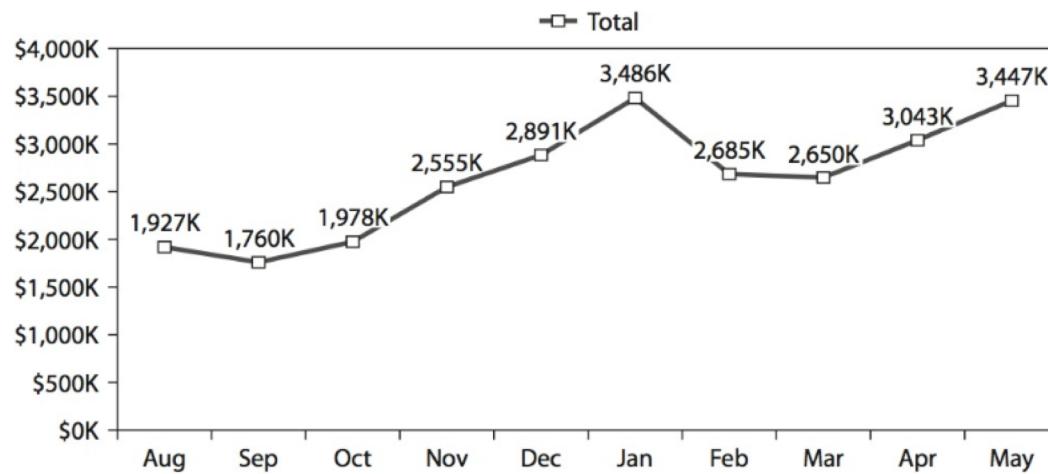
- different types of visitors come to the website
- each visit has a different intention, problem and different persona

Have an effective segmentation strategy

## Benefits of segmentation

- crafting the segmentation strategy helps you to understand the business
- indepth analysis can give insights that drive meaningful action
- effective communication tool with senior executives

# Analytical strategies: segmentation



Source: (Kaushik, A., 2010)

# Analytical strategies: customer behavior

Focus on **behavioral metrics** such as bounce rate

- helps understand what's working, what's broken & what needs to be done

Example: news.bbc.co.uk



Source: (Kaushik, A., 2010)

- not much insights: more value when people view > 4 pages

# Analytical strategies: customer behavior

## Most people visited: 1 pages

Depth of Visit	Visits	Percentage of all visitors
1 pages	67,671.00	52.95%
2 pages	17,545.00	13.73%
3 pages	12,156.00	9.51%
4 pages	6,860.00	5.37%
5 pages	5,053.00	3.95%
6 pages	3,413.00	2.67%
7 pages	2,657.00	2.08%
8 pages	1,994.00	1.56%
9 pages	1,570.00	1.23%
10 pages	1,261.00	0.99%

Source: (Kaushik, A., 2010)

- 76% of visitors did not exhibit the ideal behavior
- 24% exhibit ideal behavior.
- dig deeper – what are their preferences?

Behavioral metrics helps to understand what your customers consume

- helps company to focus better, e.g., dump entertainment, or improve it
- find the inverse – what is the group interested in? where do they come from? what repulsed them?
- behavioral metrics are everywhere:
  - loyalty
  - recency
  - returning visitors etc

## Customer intend

- internal site search data contain a modicum of intend

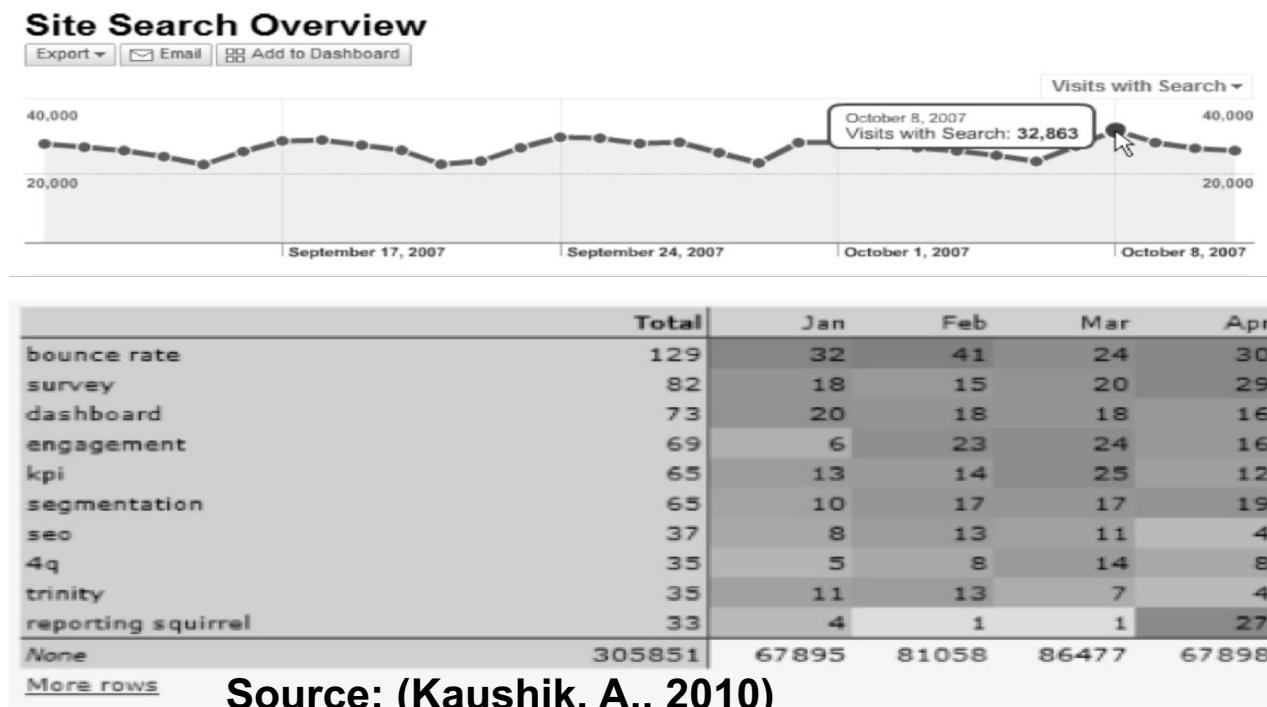
Perform three clusters of actionable analysis with internal search data

- site search usage
- site search quality
- segmenting

# Analytical strategies: internal site search analysis

## Search site usage

- how much is the search function used?
- what keywords are used most?



# Analytical strategies: internal site search analysis

Search site usage continued ...

- drill down on specific terms

Source: (Kaushik, A., 2010)



## Search quality

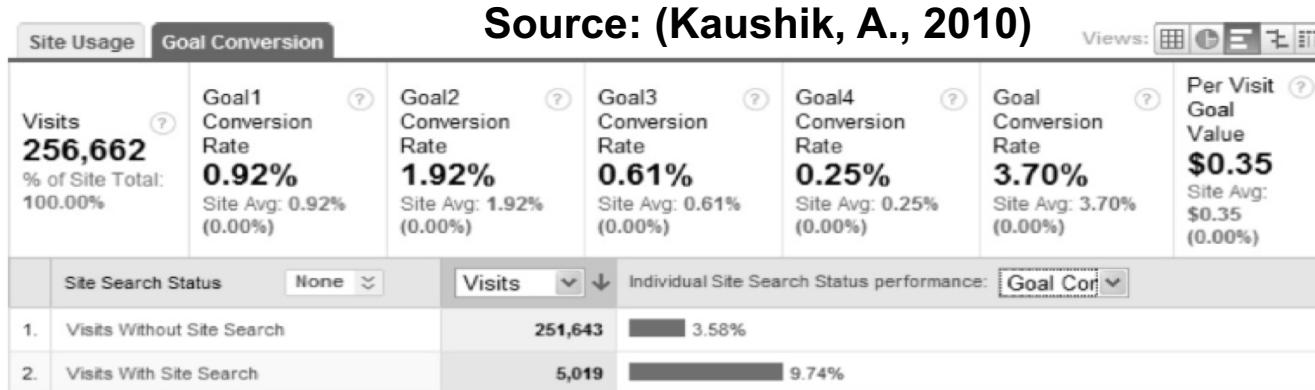
- does the search deliver quality results?
- use the **bounce rate** (sometimes called **% search exits**)
  - number of users who immediately leave your website after seeing search results

	Search Term	Total Uni	Individual Search Term performance: % Search
1.	vecino	434	1.84%
2.	jilguero	398	38.69%
3.	lasa	369	1.36%
4.	lince	368	20.65%
5.	milla	359	3.06%
6.	gavilan	344	5.52%
7.	ad	343	71.43%
8.	gomez torres	325	3.38%
9.	alarcon	266	3.76%
10.	lobo	236	16.10%

Source: (Kaushik, A., 2010)

## Segmenting and measuring impact

- do new users search more than returning users?
- is there a difference in internal site searches done visitors from different sources?



- it is possible to show the impact that site search has for the company's bottom line

Segmenting and measuring impact continued ...

- it is possible to customize the JavaScript tags to track searches that did not yield any results to the visitor
- do this (previous point) after the three search analysis discussed previously

# References

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Kaushik, A. (2010) Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity. Wiley Publishing, Inc.