

MMM006-340161 Web Analytics

Programme: Data Engineering



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Lecture 4: Analysis and Reporting

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Objectives

- Analysis techniques
- Reporting and their interpretation

The critical things about user analysis is identifying **actionable information**

Technological information about users can easily be obtained e.g.:

- Where users are geographically located
- Browsers types used
- Screen resolutions
- Devices types used (mobile phones, tablets, desktops)

The goal of the analysis should to identify patterns

The data collected by Web Analytics tools include

- Behavioral information
- Technological information
- Physical location of users

Visitor Analysis: demographics

IP addresses are used to determine where a user is located

Use this if geographic location is important for your users

As an example, for an international university like Jacobs University, the geographical spread of users could be an important factor

Allows us to divide all pageviews into meaningful segments

Visitor Analysis: new vs. returning

Returning visitor: has visited the website before

New visitor: visiting for the first time

This analysis is important if backed by business reasons e.g., to increase new visitors

Visitor Analysis: frequency and recency

How often users visit your website and how recent

- Helps to device your content strategy
- Gear content towards novice or expert users

Measured in terms of

- Visit duration: leverages the average time on website and number of pages visited metrics
- Page depth: categorizes users according to number of visited pages

Allows to determine who to optimize the website for

- What browsers and operations systems users user
- What screen resolutions users have on their devices
- What devices do users visiting website use

Questions

- How many people do we lose if we optimize website for 800x600?
- How many users will be affected if we don't support any browser except Internet Explorer?

Examines **sources** and **media** that directs the user to a website

- Example sources – search engines, url referral, direct access
- Medium – category of the source. Examples of mediums are:
 - **organic** : used a search engine but did not clicks on ads
 - **referral**: click link from another site
 - **direct**: type url directly into browser
 - **CPC** (cost per click / pay per click): arrived through advertisements e.g., Google Ads

Search categorized into two:

- **organic**: search results generated from search engine's ranking algorithm
- **paid**: ads that people can place in search engines

We can separately analyze traffic from organic and paid search

Organic traffic analysis shows us users' information needs

Keywords searched for by users indicate

- users's information needs
- different ways they use to express those needs

Note: keyword dimension only captures search queries that brought users to your website, it doesn't say anything about search queries that did not bring them to your website

Questions

- How well does your website address users's information needs?
- Do you have info that help users?
- Where is that information on your website?
- How easy is it to navigate and find?
- Do the words you use to describe your products and services match what people are searching for?

Analyze keywords that brought users to website

- Categorize and characterize in terms of size & usage metrics e.g., bounce rate and conversion rate
- Export data about queries searched for in a given period
- Group phrases into clusters in terms of what users are trying to express
- Insights into how many users express a different information needs and how you can better segment you data according to search needs of users