

MMM006-340161 Web Analytics

Programme: Data Engineering



Fall Semester 2018

Lecture 3: Metrics and Dimensions

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Introduce commonly used Web Analytics metrics

”If you can’t measure it, you can’t improve it” – Lord Kelvin

Metrics are numeric measurements of aspects of user behavior

Examples:

- number of page views
- bounce rate

Dimensions are categories into which user data maybe grouped into

Examples:

- browser types used to access website
- types of devices used (mobile or desktop)
- keywords used for searching

- Dimensions describe different attributes of users, their computers, how they got to your website etc
- Use dimensions to divide users into **segments**

Introduction continued ...

By pairing dimensions with metrics, we can learn things like:

- number of users using a certain browser?
- number of views received by each page?
- number of visits from Berlin vs from number of visits from London?

Example

Consider a metric, **pageview** metric and a dimension **page URL**

Each time the page URL is loaded, pageview is counted

Thus the number of pageviews each page URL receives can be counted

Allows us to divide all pageviews into meaningful segments

Example

Consider a metric, **average time on website** metric and a dimension **mobile** (used mobile device like phone or tablet)

Average time on website means the average amount of time that a group of users spent on website

This combination allows you to see the average amount of time mobile users spent on your website and compare that to desktop users

Visits

- A single time that a person comes to a website, clicks around and views pages, then leaves
- Visits are not very useful on their own, but can be sliced further

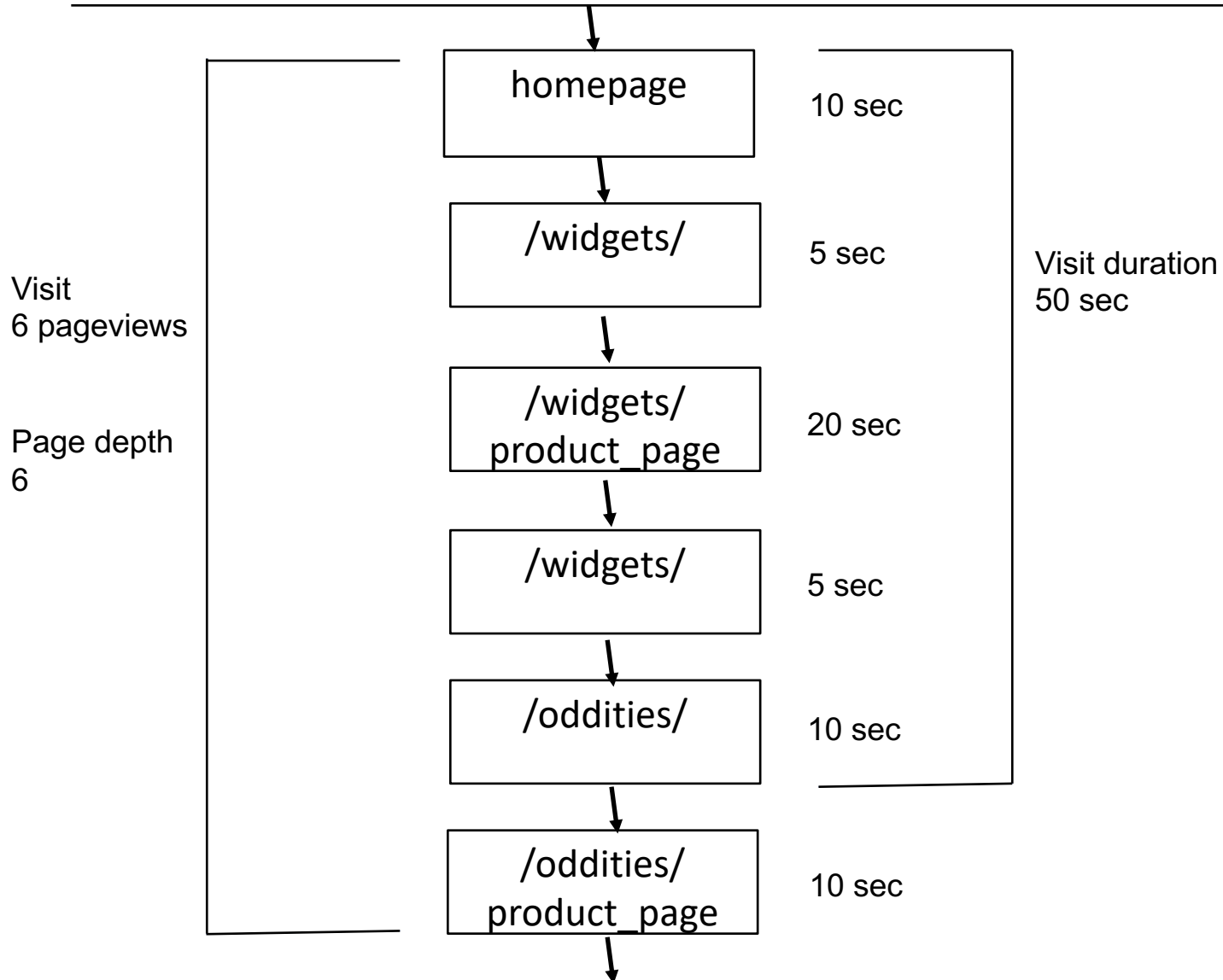
Unique Visitors

- A new visit is when a user starts a new session
- A visitor is unique within a selected timeframe
- A **cookie** is used to determine if a visitor is new or not
- If user accesses the same website using a different device, s/he is counted twice

Pageviews

- A single time that a user went to a page
- If the user goes to a page more than once, during his/ her visit, its recorded as a separate pageview each time

Metrics, example



Pages/ Visit

Pages/ visit and page depth both capture the number of pages that users go to during their visit

It is useful to compare the metric across different segments of users or over time

Average visit duration

The amount of time that the user spends on website

Time spent on the last page is not counted

Bounce rate

Number of users who enter a website on a page and left without visiting any other pages divided by the total number of users who entered the website on that page

It only counts users who start their visit on a page and excludes user who navigate from other pages

A low bounce rate is generally a good thing

% new visits

Number of users who have never been to the website before divided by the total number of users

In Google Analytics, “new” means they haven’t visited within the last two years

The problem with this metric is that it doesn’t reflect people who are (i) using a different computer (ii) using a different browser (iii) clear their cookies

Visitor type

Closely related to the previous metric – visitors classified into “new” or “returning”

“returning” if their browser has a cookie from the website from the past two years and

“new” if their browser has no cookie from the website from the past two years