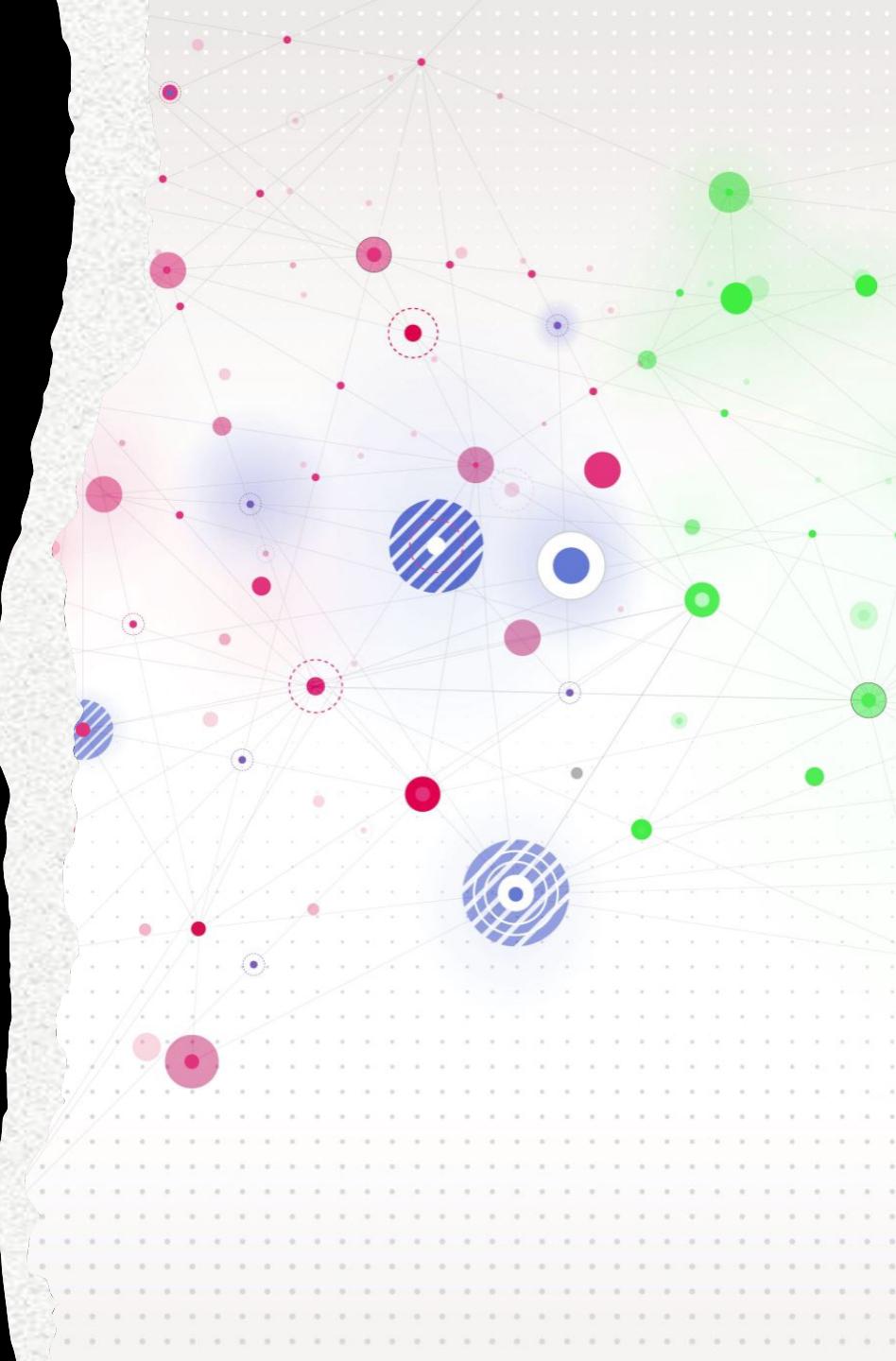


Collection and Reporting of Web Analytics Using Google Tag Manager

Hoang Pham
ICT Lecturer & Software Engineer



Understanding your data

- While data is easy to be collected, it is not easy to understand and use.
- <https://www.avoidata.fi/en>

Basic terminologies in web analytics

Pageviews

- Number of times users view a certain page
 - If a user refreshes a page, it is counted as a new pageview
 - If user navigates to another page, and navigate back, it is another new page view

Visits

- Duration of time visitors spend on browsing your **site**. A visit is automatically terminated after 30 minutes of inactivity or if the user leaves the site for more than 30 minutes
- How can a website know this?

Unique pageviews

- There are visitors who have visited your site before and those who have not. They are categorized as new visitors and returning visitors. How?

Unique pageviews

- There are visitors who have visited your website before and those who have not. This is called unique visitors. Unique visitors are the number of visitors and repeat visitors.



Unique pageviews

- All of pageviews, performed by 1 single visitor, during 1 visit, is counted as 1

Unique visitors

- Now that we are able to tell who is a new visitor and who isn't
- When a new visitor visits your site, a new visitor and a new visit are registered
- When a returning visitor visits your site, only a new visit is registered

Drawbacks

- The system isn't perfect
- If a returning visitor returns with a different cookie, you won't be able to identify that person as a returning visitor
- When user switches between browsers, or uses a browser that has cookie disabled (such as private browsing mode), or changes from desktop to phone
- Solution?

Drawbacks

- The system isn't perfect
- If a returning visitor returns with a different cookie, you won't be able to identify that person as a returning visitor
- When user switches between browsers, or uses a browser that has cookie disabled (such as private browsing mode), or changes from desktop to phone
- Solution?

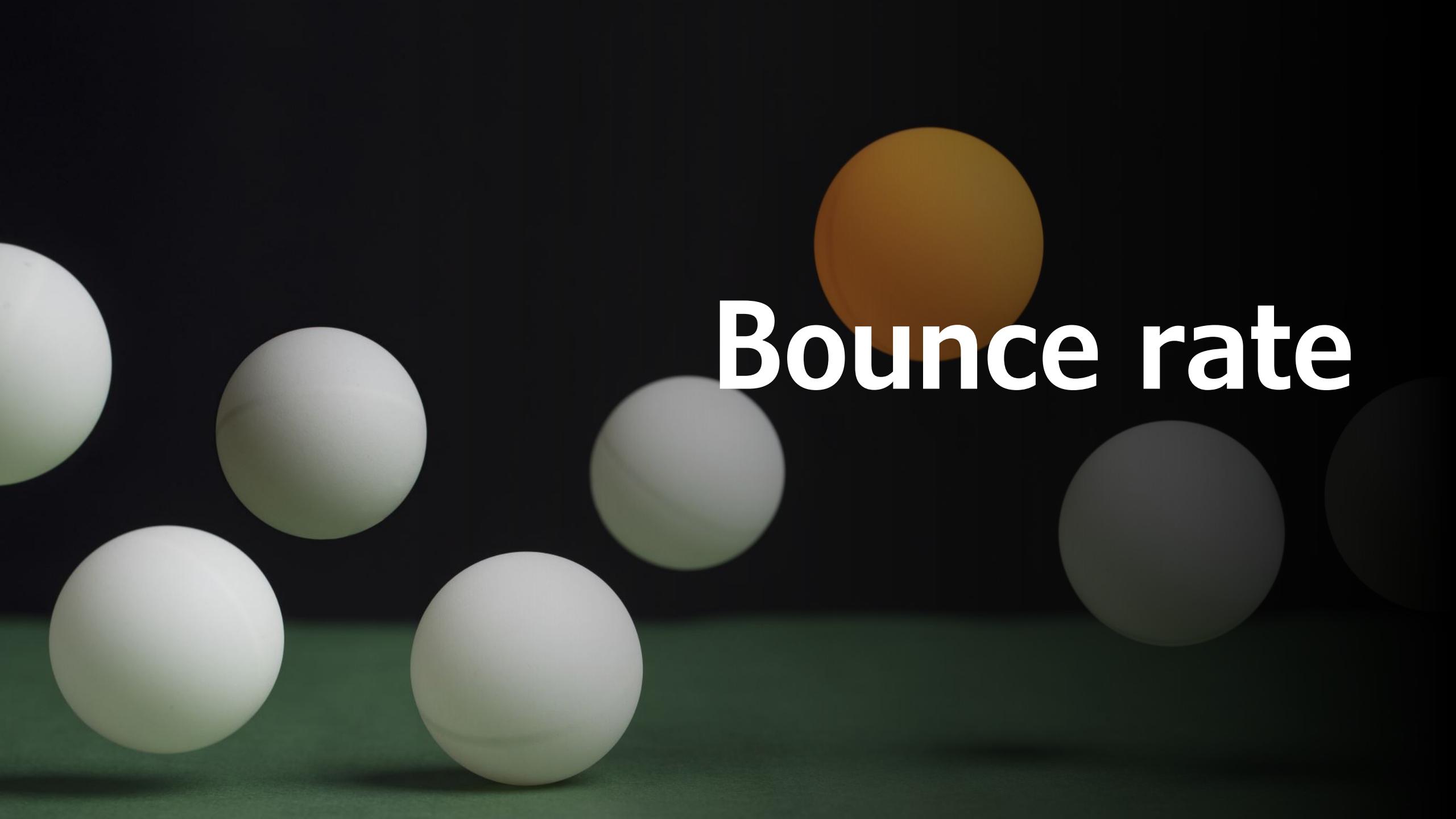
<https://tietosuoja.fi/en/automated-decision-making-and-profiling>

Segments

- Groups of visitors (new visitor and returning visitor)
- Segments allow analyzing data in more details, filtering analytical result for certain group of visitors/traffic

Landing page

- The first webpage, that a visitor began their visits on your site, literally how he/she has landed on your site



Bounce rate

Bounce rate

- A percentage that is calculated by dividing the number of visits where visitors leave your site after 1 page by the total number of visits

Users Flow

- Users flow report show how users navigate through your site, starting from how they landed until how their visits ended (exit page)

Traffic

- There are direct traffic and referral traffic
- If a visitor visits your site by typing the URL into his/her browser, or by clicking on a bookmark, this visit is counted toward direct traffic
- If a visitor visits your site by clicking on a link that refers to your site somewhere else (such as Facebook, or advertisement banner, or search result), this visit is counted toward referral traffic
- Referral traffic on search result will come with recorded searched/sought keywords.
- If you have paid to have your site appeared more often on the search result, referral traffic from search result will also be further categorized into paid and organic

Events

- Google Analytics is fully automated and collect and report meaningful information from your site without further configuration
- However there will be things that Google Analytics don't know of and you will need to configure them manually, such customized tracking are known as event. These include non generic activities that you would like Google Analytics to keep track of such as user fills in a form, downloads a file

Goals

- There are certain actions from users that are more desirable from site owners than others, such as user making purchases, user sending a request for insurance quote, user downloads certain files. Basically, most important **Events**
- These can be specifically set to be monitored in order to calculate the conversion rate.

Task

- Create a button on your website, generate a custom tracking for Google Analytic when user clicks on that button
- Use the following documentation to assist you
<https://developers.google.com/analytics/devguides/collection/analyticsjs/events>