## SCHOOL OF ELECTRONICS AND COMPUTER SCIENCE FACULTY OF PHYSICAL SCIENCES AND ENGINEERING UNIVERSITY OF SOUTHAMPTON

# COMP2211 - User Guide

SOBCZAK Konrad K (kks1g19@soton.ac.uk)
SCRASE James M (jms1g19@soton.ac.uk)
UMAVASSEE Sharan G (sgu1n19@soton.ac.uk)
NOOLI Karthik (kn3g19@soton.ac.uk)
PROTOPAPAS Christos (cp2n19@soton.ac.uk)
TARAJIA Ammar (at3g19@soton.ac.uk)

**TEAM 17** 

## 1 Application Functionalities

- The Dashboard allows us to load CSV files, named impression\_log, click\_log and server\_log, corresponding to campaign data to analyse its performance in the form of metrics.
- The user can load in an existing campaign database created from format correct files.
- Adding and removing files can be done for additional loading of important data.
- Once campaigns are loaded, a histogram showing the distribution of click costs across a range of 0 to maximum click cost using unit intervals.
- Key statistics for the distribution of click costs are included next to the histogram.
- Current campaign viewed can be saved in the form of a database.
- Key Metrics section contains a graph builder where the user selects their desired metric for display.
- Metrics are displayed as metric time graphs with attribute numbers that summarise the metric for quick understanding.
- Metrics are displayed in a queue form.
- Charts can be saved from the Save Image button or by right-clicking the desired chart.
- We allow the user to open any metric in detail view to filter, manipulate the time granularity and to see the relevant raw data.
- Metrics can be filtered by Audience properties (Age, Gender, Income), Context options and Date Range.
- Time granularity can be manipulated using either the slider with options: 1 Minute, 1 Hour, 1 Day, 1 Week, 1 Month, or a text box with custom values.
- The Side-by-Side view can be accessed through the sidebar. It allows the user to open and compare two metrics graphically. Two drop-down lists are included underneath each graph to select the desired metrics for comparison.
- The time granularity for both graphs can be manipulated using the same above concept.
- Filters are included for each graph section. Both filter sections are limited to the same filter category when filtering either or both graphs.
- The home button in the sidebar can be clicked at any time to bring the user back to the campaign home view.
- The settings menu bar on the top enables the user to define the bounce as the number of pages viewed or the number of seconds spent on the website before clicking away. The values are customisable and user-interactive. The bounce metric automatically reloads per change to bounce definition.
- The campaign can be printed using the exporting i print option in the top menu bar.
- A help page is provided to help any user with no prior knowledge of metrics and campaign specific data by providing a list of key terms and definitions.
- Accessibility features to change the style of the application are included in view tab of menu bar to customise the look of the application via different colour schemes.

## 2 How to use

## 2.1 Loading files

- Load Campaign by clicking on file selector icon to open file chooser dialog and selecting correct CSV files
- Click on the file format drop-down list to change desired file format and load different file. Can also add custom file if necessary.
- Campaign database can be loaded directly into application using the "Load from existing database" button
- Add and remove buttons will add and remove rows to load additional files. First three files are fixed.

#### 2.2 Key metrics

- Go to "Graph Builder" section and select the metric from the drop-down list in the middle. Click on the "+ Add" button and the metric will be displayed.
- Click on "Open Detail" button to view the data table, filter per Audience, Context or Date Range and manipulate the time granularity of the metric time graph.
- To filter by:
  - Audience, select the desired filter property and unselect the unused filter by clicking on the middle cross/tick icon. Select values from the drop-down list
  - Context, select values from the drop-down list
  - Date Range, the edit button brings out a calendar to select a date for filtering. Dates can also by typed in the format of dd/mm/yyyy in input area. Skip to start and end buttons to bring back to the start and end of campaign.
- To manipulate the time granularity, the slider snaps to predefined values (1 Minute, 1 Hour, 1 Day, 1 Week, 1 Month). The user can also input values directly in the text box. The graph transforms per the time granularity selected.

#### 2.3 Comparing multiple metrics

- To compare metrics, we implemented a side-by-side view tab on the sidebar. It displays metric graphs side by side on default.
- Click on "Combined" button to merge metric graphs.
- The time granularity slider and textbox varies both graphs.
- The left and right filter affect the left and right graphs respectively.

## 2.4 Other options

- Click on "Save Image" button or right-click on any chart to save chart as PNG
- Change the bounce definition by using Settings tab on top menu bar
- Printing can be done in Exporting tab in top menu bar
- Colourblind settings are located in the view tab in the top menu bar. A colour palette containing 4 colour schemes which the user selects the most appropriate colours considering their colourblindness type.