

COM-480:Data visualization
Data visualization of marine plastic [litter, debris, etc.]
pollution.

Sergii Shynkaruk (269469)

Ana Stanojevic (268578)

Mohammad Aquil (273107)

École polytechnique fédérale de Lausanne, Switzerland

November 26, 2017

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Figure 1: Overview [Map]

1 Prototype

1.1 Overview

Overview section is what is show when the user open visualization. It consists of a map, on which there is a button, referring to overall statistics of pollution of each ocean/sea separately. From here, through radio buttons user choose, if she wants to explore more about done expeditions or garbage spreading.

1.2 Expeditions

We visualize all done expeditions on the map. User can zoom in to explore, geometrically, in more details, exact points of expedition. By clicking on a certain expedition (here marked in red), all other (possibly overlapping) expeditions disappear and to user it is shown a small window, with more information about this exact expedition. Further, by clicking on button statistics, user have more options to investigate expeditions over time. On a provided timeline, it is possible to select and slide over time intervals. Two graphics are instantly showing information (number of expeditions in each ocean and amount of measured garbage of each type), in this time interval.

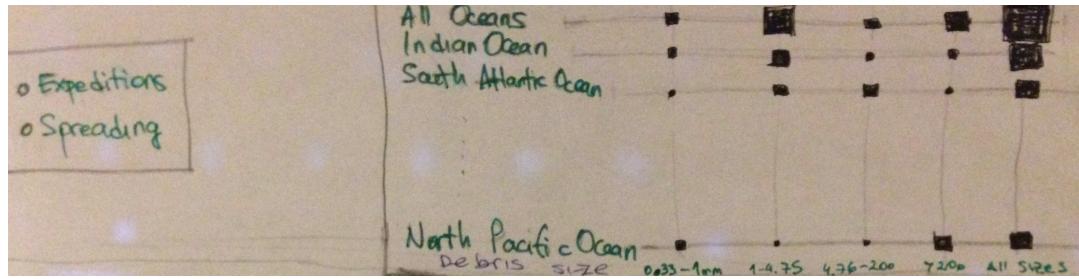


Figure 2: Overview [Statistics]

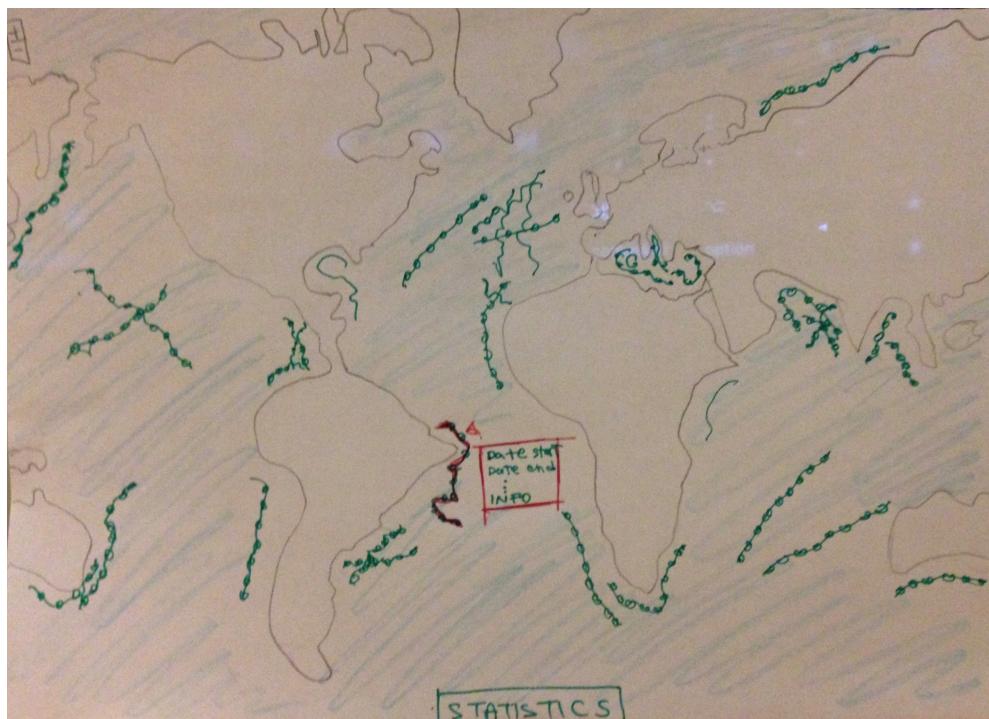


Figure 3: Expeditions [Map]

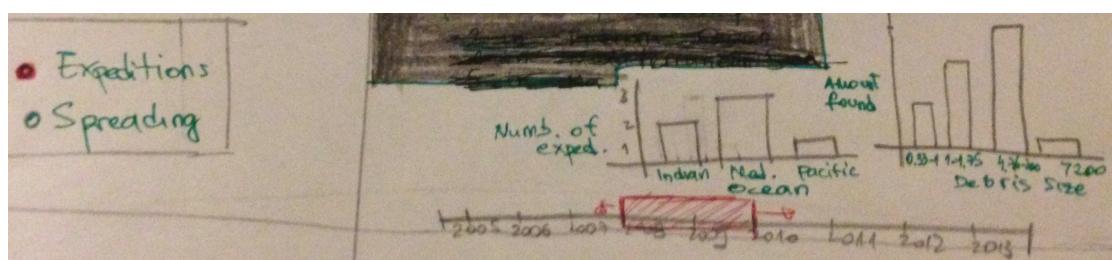


Figure 4: Expeditions [Statistics]



Figure 5: Spreading [Map]

1.3 Spreading

In this section, user is shown red markers on a map. By choosing one of this markers, user starts a small animation, which shows direction of garbage spreading, if thrown exactly at the chosen marked point. This is done through graph visualization, where type of edges (e.g. red and thick edges, or green and thin) represent if there is a big or small probability for garbage to spread in this direction.