Questions Data Processing, Week 3

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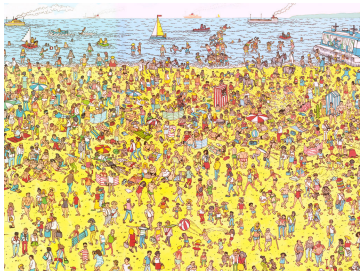
Opgave 1. *Ware describes bottom up and top down processing of visual information in the brain. Give a concrete and detailed example of how bottom up processing is influenced by top down processing, leading to a potentially wrong interpretation of reality by the viewer. Your example can include a screenshot, photo, or web site URL to refer to the scene that is being viewed.*

Oplossing. Bottom up processing begins with the stimulus. This stimulus influences our perception. On the other hand, top down processing uses your background knowledge to influence perception. So when bottom up processing is influenced by top down processing, there is a big possibility that we only see what we think is useful. The rest of the image is basically ignored. For example, let's have a loot at the image below. What we see is a white paper filled with black dots. But our mind connects the dots and the only thing we can see now is a dalmatian walking in the direction of a tree.

Another good example are the images of Where is Waldo. We know that we are looking for Waldo, so the rest of thw image is not important to us. The only thing that we really see is Waldo itself. Which is unfortunate, because there are a lot of interresting people that surround Waldo.



□

Opgave 2. *In the Polaris paper, carefully read section 7.1 Scenario 1: Commercial Database Analysis on p. 62 again and examine Figure 6. Describe the visual mappings and visual queries, as mentioned earlier in the article, that Polaris enables in this series of screenshots.*

Oplossing. Figure 6a uses the visual mappings shape and orientation. The bigger the scatted, the bigger the impact. The orientation shows us whether the product is leaning toward profit or not. In figure 6c they use color mapping to show what kind of a product we are looking at, and they use the shape and orientation to show how much money is gained or lost. What they mean by visual queries is not clear to me. □

Opgave 3. *Go to the Many Eyes website and browse around the visualizations. Click through a few and look at the comments. How successful do you think Many Eyes has been in achieving its original design purpose according to the paper? What do you think is the biggest issue/flaw with Many Eyes? What improvements might you suggest to Many Eyes to address these issues/flaws?*

Oplossing. Quote: 'The goal of the site is to support collaboration around visualizations at a large scale by fostering a social style of data analysis in which visualizations not only serve as a discovery tool for individuals but also as a medium to spur discussion among users.'

I could not find the place where people can discuss, so that was a shame. But it is easy to create a visualisation. The visualisations have simple designs, but that does not matter. It is interresting to see that people can create totally different visualisations from the same data set. □