



Figure 1. The Billion Dollar O-Gram by David McCandless

Consider Bertin's characterization of visual variables (position, size, shape, value, color, orientation, and texture). Pick 2 of Bertin's visual variables, and discuss them in relation to your visualization.

I shall discuss the data visualisation The Billion Dollar O-Gram, see figure 1, which puts billion dollar budgets that are issued by governments and the media, into context in order to create a better understanding of these otherwise mind-boggling numbers. Size and colour are the visual variables that play the most important roles in this data visualisation. Size has a quantitative characteristic because it indicates the amount of the money. The size is not meant to display the exact amount of money, but to display the size of the budgets relatively to each other. The texts in the blocks displays the exact amount of money and its purpose. Colour has an associative characteristic in The Billion Dollar O-Gram. Colour here is used to indicate the motivation behind the budget. Blocks with the same colour are in different locations but can be grouped together because they share the same motivation or source.

Do you agree that visualization is a functional art? Explain.

Albert Cairo states that functional art achieves beauty through the careful thinking of the engineer and not through that the subjective self-expression of an artist. I believe this is a slightly oversimplified statement. The choices a designer makes when abstracting the information and designing the visualisation can not been seen as purely objective, just because the main objective of the image is to inform. What information is shown and how it is shown are decisions made by the designer that influence how the information is perceived. So one could argue that to a certain degree all information visualisations are subjective. Cairo also claims that with functional art the

form is dictated by the function of the information visualisation. The informational value of the image is the most important aspect of the visualisation. I believe this should be the case, however I have seen many examples that show the opposite design approach. So in my opinion it truly depends on the visualisation.

*Ask yourself what the designer is trying to convey and think of three to four possible tasks this visualization should help you with. Does the visualization achieve any of your tasks? (To view an example, see Albert Cairo, pages 26-28.)*

1. The visualisation should present globally relevant billion dollar budgets
2. The visualisation should allow one to grasp the sizes of the budgets at a glance
3. The visualisation should display the relationship between the budgets

The Billion Dollar O-Gram presents a few globally relevant billion budgets. However the scope of the topics of the budgets is too broad. This doesn't allow for any in depth information on any of the topics covered. The visualisation is very effective at creating an understanding of the sizes of the budgets. The relationships are made clear by their colour and position. The budgets concerning the same topic are placed over each other, making it very easy to compare the size of the budgets. Also the exact amounts are displayed in the blocks giving exact numerical information.