Analysis, Discussion, and Critiques on Visualization Guidelines

Visualization guidelines, if appropriately defined, are invaluable to both practical applications and the theoretical foundation of visualization. “A visualization guideline embodies wisdom advising a sound practice for designing and producing visualization imagery in practical applications” [Chen et al. 2017, DOI: 10.1109/MCG.2017.3271463]. In the field of visualization, it is estimated that hundreds of different guidelines have been recommended by various books, research papers, and online media.

Please write an essay (500 words, excluding references) in which you develop your point of view on one of the guidelines discussed in VisGuides or any other source of guidelines such as blogs, books, or other online media. The assignment consists of two tasks, providing 1 point each one, as follows:

• (1 point) Support your point of view on the selected guideline with reasoning and example/s taken from your literature reading on visualization, experience gained through coursework, general knowledge about computer science and its applications, and other relevant personal experience and observation.

• (1 point) Show evidence of applications or counter-evidence where the proposed guideline may fail, be invalid, or out of scope. If in your criteria, the guideline applies universally to all the cases, please support the answer with a clear justification.

You may aid your essay with illustrations. Please use quotation marks for all direct quotations and ensure that appropriate citations and references are included to acknowledge the sources of data, figures, and direct as well as indirect quotations.

(Total 2 points)

Examples of questions and directions you may address during the reasoning of your essay:

- Analyze the visualization guideline in some depth, e.g., discussing conditions where it works well, and conditions where it fails:

  • Is the guideline specific for a particular visualization technique/s or can be generalized to the visualization discipline and/or other disciplines?
  • Is the guideline always correct or useful?
  • Does the guideline complement other guidelines? Provide examples
  • Does the guideline offer conflicting guidance to users? Provide examples.
  • Does the guideline contradict other guidelines or common visual design practices? Provide counter-evidence.