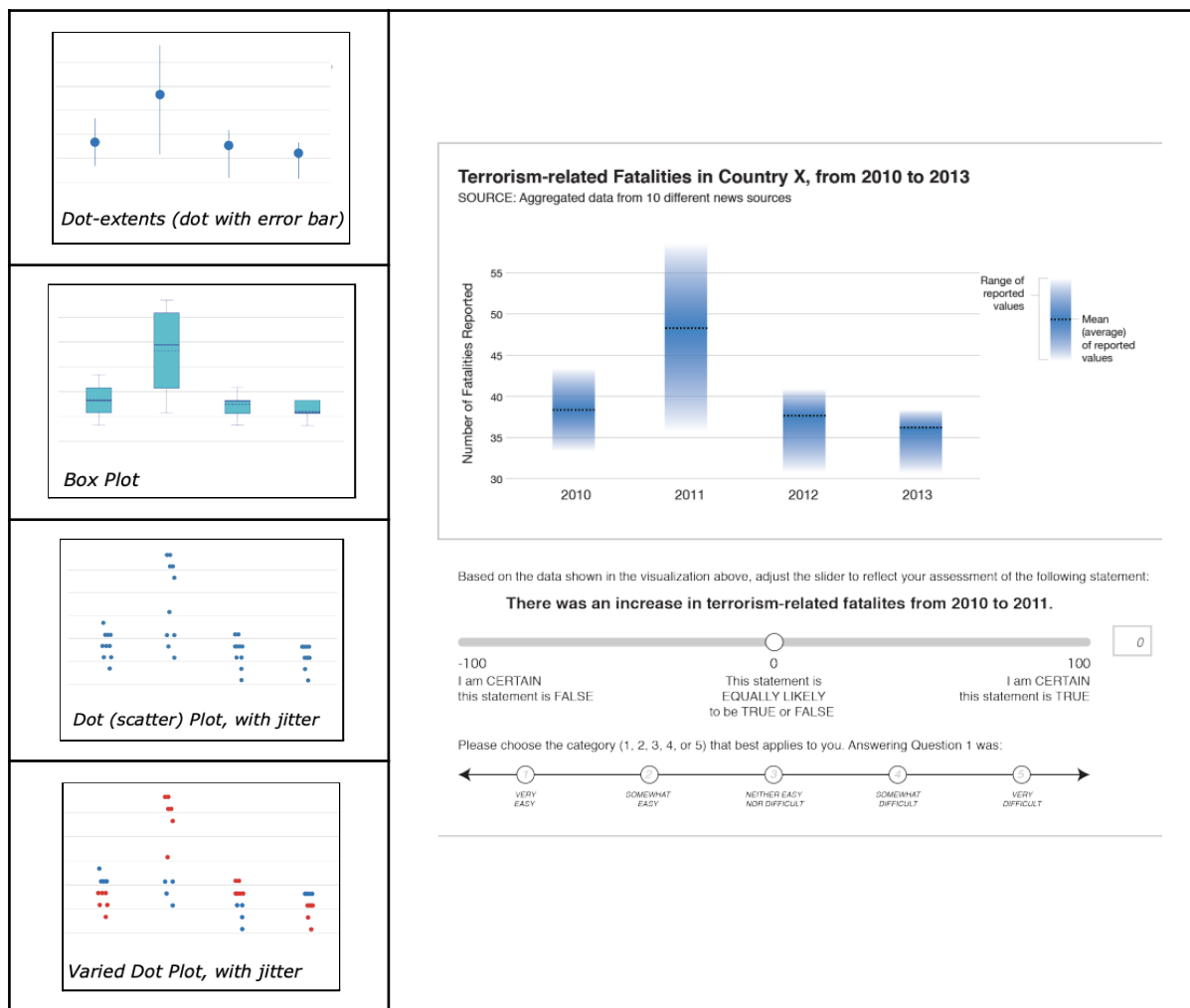


## Week (14) - “An Instrument for Evaluating Uncertainty Visualization Techniques”

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Data visualization is one of the best ways to communicate with decision-makers and the public in general. However, visualizing data may impact the data by introducing uncertainty. The researchers believe that data uncertainty should not be hidden from the viewer since it may cause problems such as making bad decisions. This paper aims to find the vocabulary to express uncertainty using a tool that the researchers developed. The researchers tested their hypothesis, which was “*the choice of technique used to display uncertainty in a visualization impacts how well a viewer can comprehend the content of that visualization.*” They measured four aspects: accuracy, reported confidence, response time, and cognitive load using data and visualizations with uncertainty and different types of questions to help them gain insight into these four variables. Below are the uncertainty visualizations they used in their experiment.



The result of this test suggested that participants were able to perceive uncertainty with ease. It also proved the efficacy of the tool they built for collecting data on uncertainty evaluation techniques.

### Sources:

1. <https://dl.acm.org/doi/10.1145/3170427.3188649>