

A Benchmark for Rough Sketch Cleanup: Perceptual Study

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Cleaning Rough Sketches

The following are neatened versions of the above rough drawing. A neatened drawing should depict the same shape but with cleaner or neater strokes. The cleaned or neatened strokes should not change the shape of what is drawn:

- Strokes should be cleaner or neater versions of strokes already present.
- Redundant strokes should be removed.
- Strokes that are loose and messy should be converted to a single clean stroke.
- Errant strokes should be removed.
- Strokes should precisely meet at junctions.

Please don't click randomly.

The original rough input image:



Please mark the degree to which each of the following drawings is a high-quality neatened version of the above rough drawing.

<input type="radio"/> Very high quality <input type="radio"/> High quality <input type="radio"/> Medium quality <input type="radio"/> Low quality <input type="radio"/> Very low quality	<input type="radio"/> Very high quality <input type="radio"/> High quality <input type="radio"/> Medium quality <input type="radio"/> Low quality <input type="radio"/> Very low quality	<input type="radio"/> Very high quality <input type="radio"/> High quality <input type="radio"/> Medium quality <input type="radio"/> Low quality <input type="radio"/> Very low quality
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Fig. 1. The architectural stimulus shown to participants in the perceptual experiment. Neatened drawings were shown in randomized order.

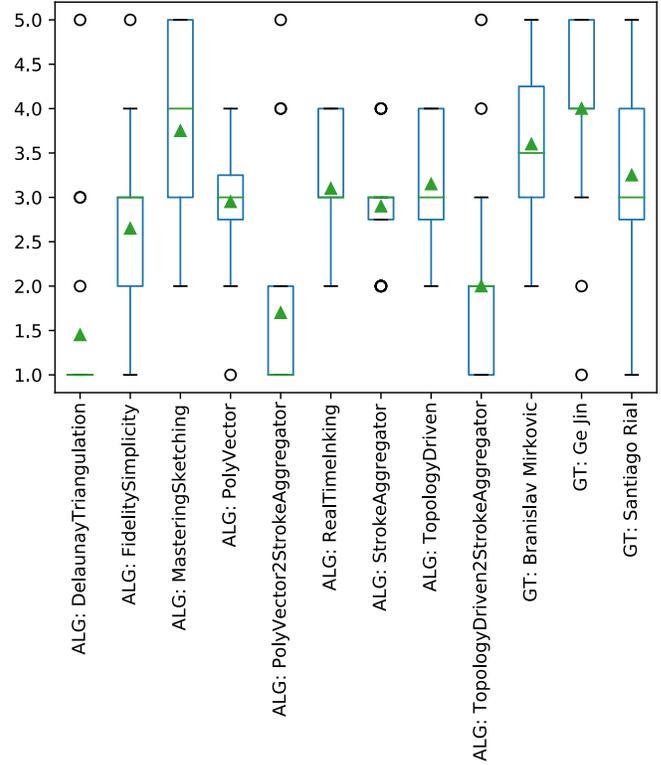


Fig. 2. A box plot of Likert scores for the architectural input (Figure 1). Boxes enclose the first and third quartiles of the Likert scores for each neatened drawing. The median and mean are drawn as horizontal black and green lines, respectively. Whiskers enclose non-outlier data (defined as one-and-a-half times the difference between the first and third quartiles). Outliers are depicted as small circles.

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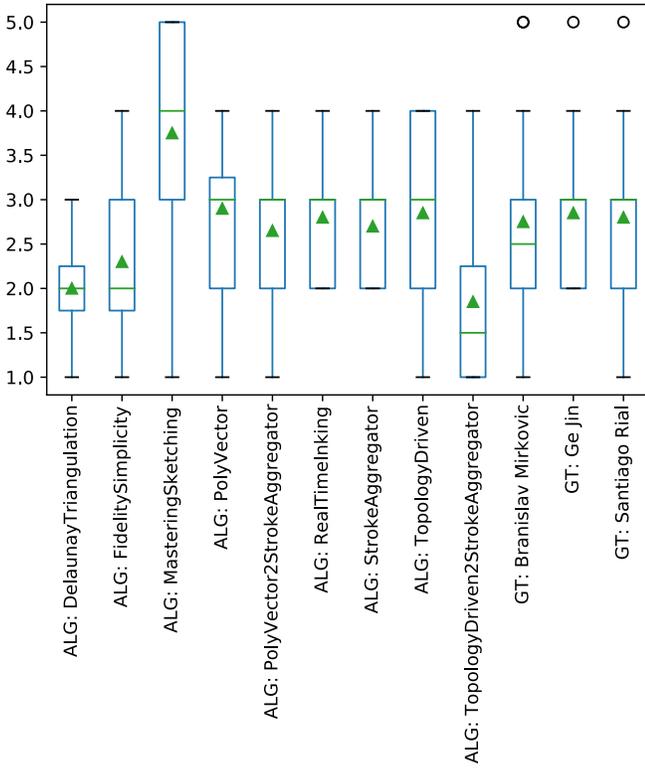


Fig. 4. A box plot of Likert scores for the freeform input (Figure 3). See Figure 2 for an explanation of the box plot.

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Fig. 3. The freeform stimulus shown to participants in the perceptual experiment. Neatened drawings were shown in randomized order.

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