Paper Critique

Information Visualization

(CSCI 628)

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Paper

When (ish) is My Bus? User-centered Visualizations of Uncertainty in Everyday, Mobile Predictive Systems

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The paper "When (ish) is My Bus?" proposed a visualization method to represent uncertainty data on a small screen. The authors presented several concepts like dot-plot, density-plot, and stripe-plot to a controlled group of public transit users. The survey found out that a dot-plot with a smaller number of dots performed the best.

Although this paper presents an interesting concept to visualize uncertainty data in public transit, the survey questions can be better structured to reach a more concrete conclusion. Some concerns from the survey are:

- How often the survey users use the application does not mean they like the visualization. In the absence of a better alternative, they have to use the only option.
- Technical issues like false status reporting by OneBusAway are not a valid strong point of contrast for engaging visualization. These technical issues can happen to any application due to hardware malfunction.
- Most of the users who joined the survey are familiar with the OneBusAway application. A higher number of new users in the survey group could present a fresh perspective. It could tell us whether news users find the visualization intuitive enough.

Can we add distance from the previous stop or when the bus left from the last stop to improve the visualization? Presenting the actual data alongside the predictions can help the users make better decisions.

References

[1] M. Kay, T. Kola, J. R. Hullman, and S. A. Munson, "When (ish) is my bus? user-centered visualizations of uncertainty in everyday, mobile predictive systems," in *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*, ser. CHI '16, San Jose, California, USA: Association for Computing Machinery, May 2016, pp. 5092–5103.