SIMPLIFYING OVERVIEWS OF TEMPORAL EVENT SEQUENCES

Best Paper Honorable Mention

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MOTIVATION

The analysis of new data is often difficult as modern datasets can be overwhelmingly large. Through **observing the practices of analysts working with the event sequence visualization tool EventFlow,** we identified **three techniques to reduce initial visual complexity resulting in a simplified overview.**

VIDEO   WEBSITE

https://www.youtube.com/watch?v=k0kh2Tn5898   http://hcil.umd.edu/eventflow/

SIMPLIFYING TECHNIQUES

We developed the following **three overview simplifying techniques** and support user interfaces **for EventFlow:**

1. Provide an Initial Pair: For novice users, we immediately suggest an initial pair of event categories to display in order to help start analysis.
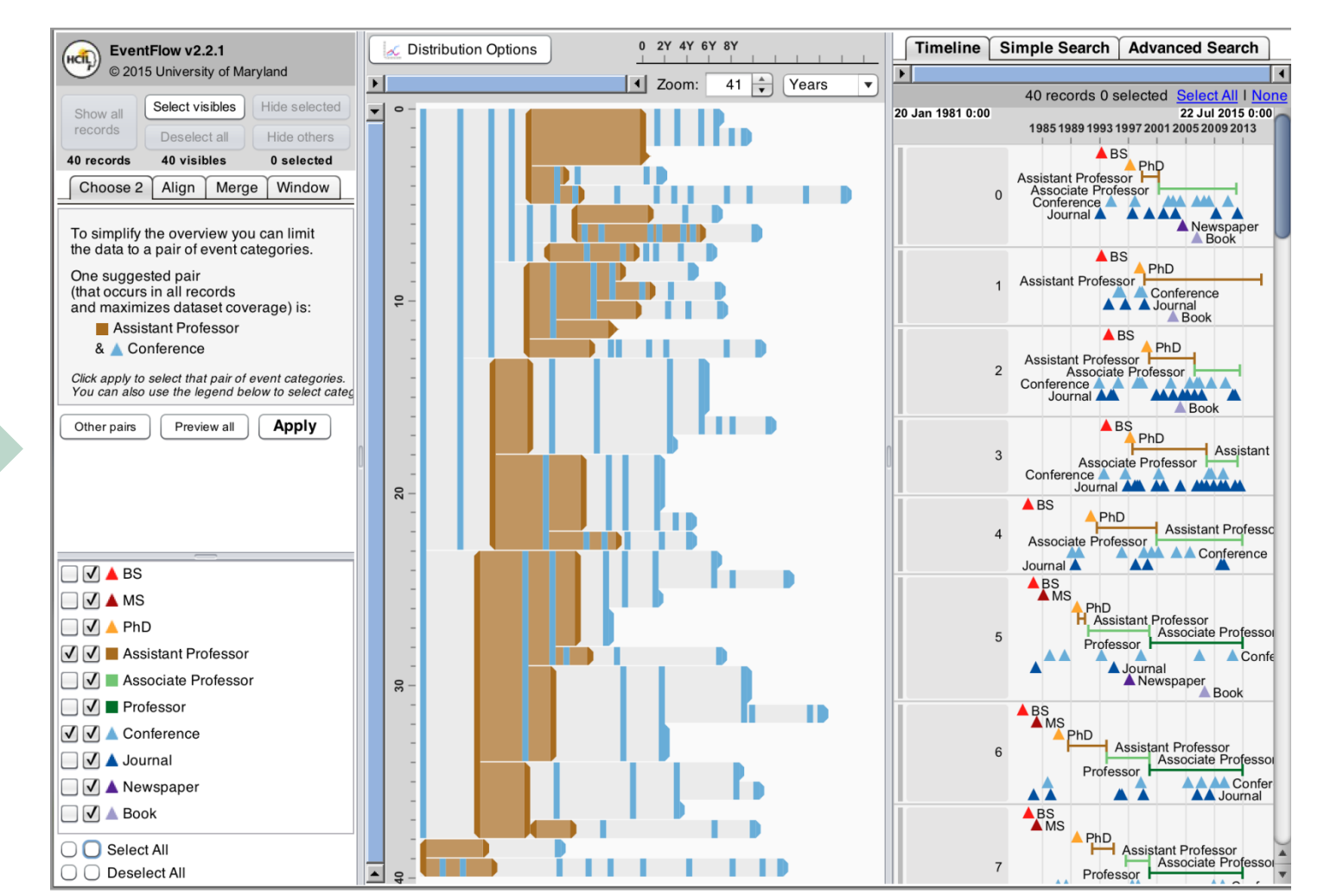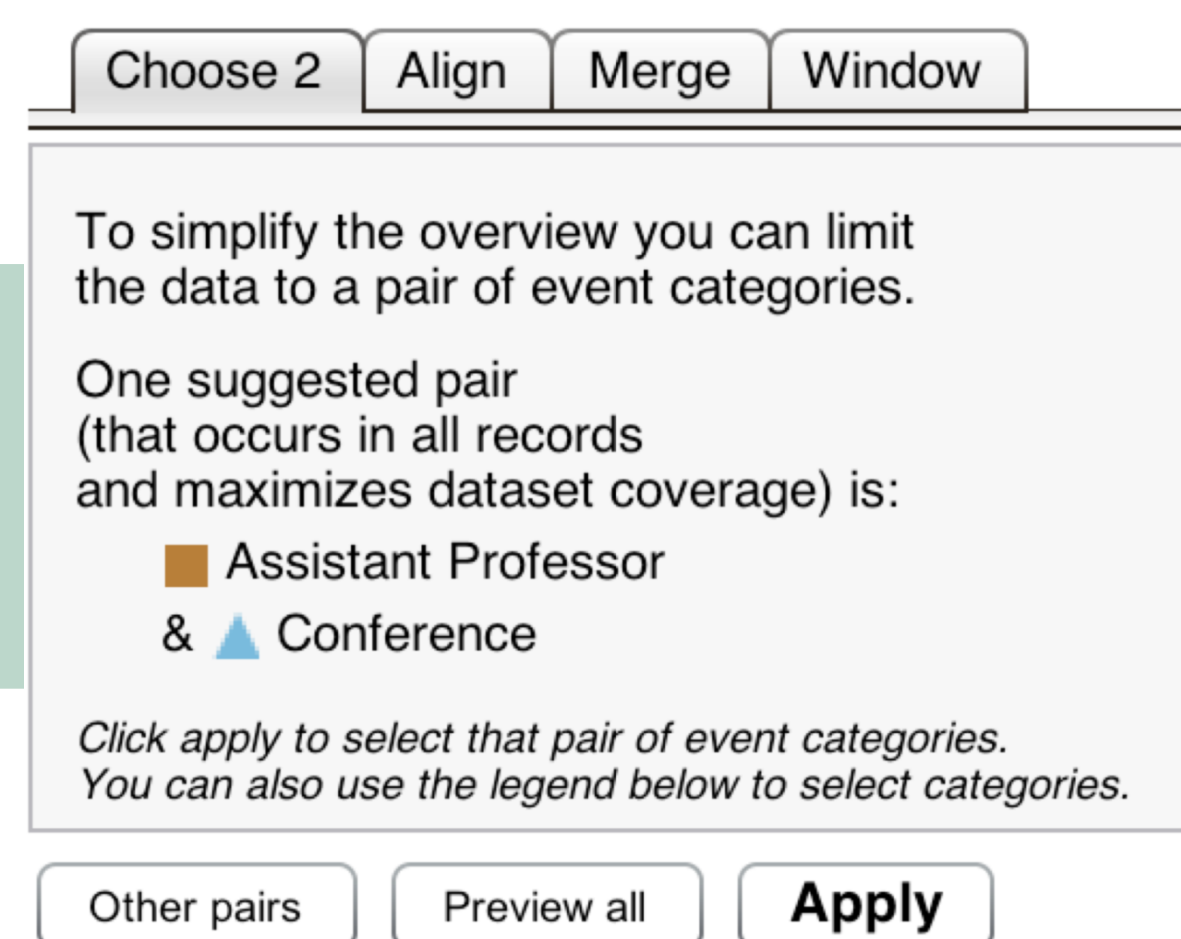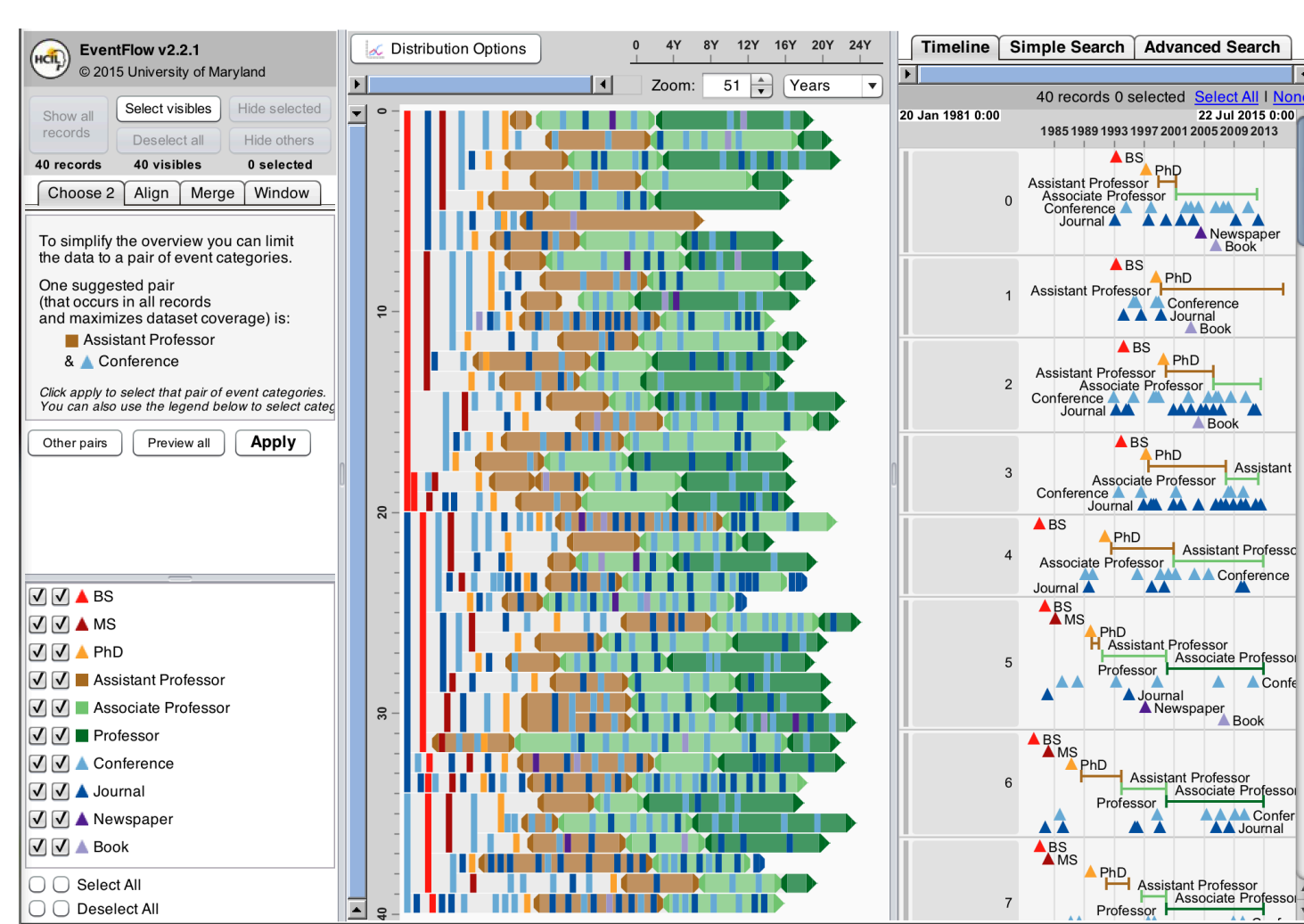
2. Provide a Ranked List of All Pairs: Intended for advanced users, we provide a ranked list of all possible pairs of event categories. The pairs can currently be ranked by six different metrics.
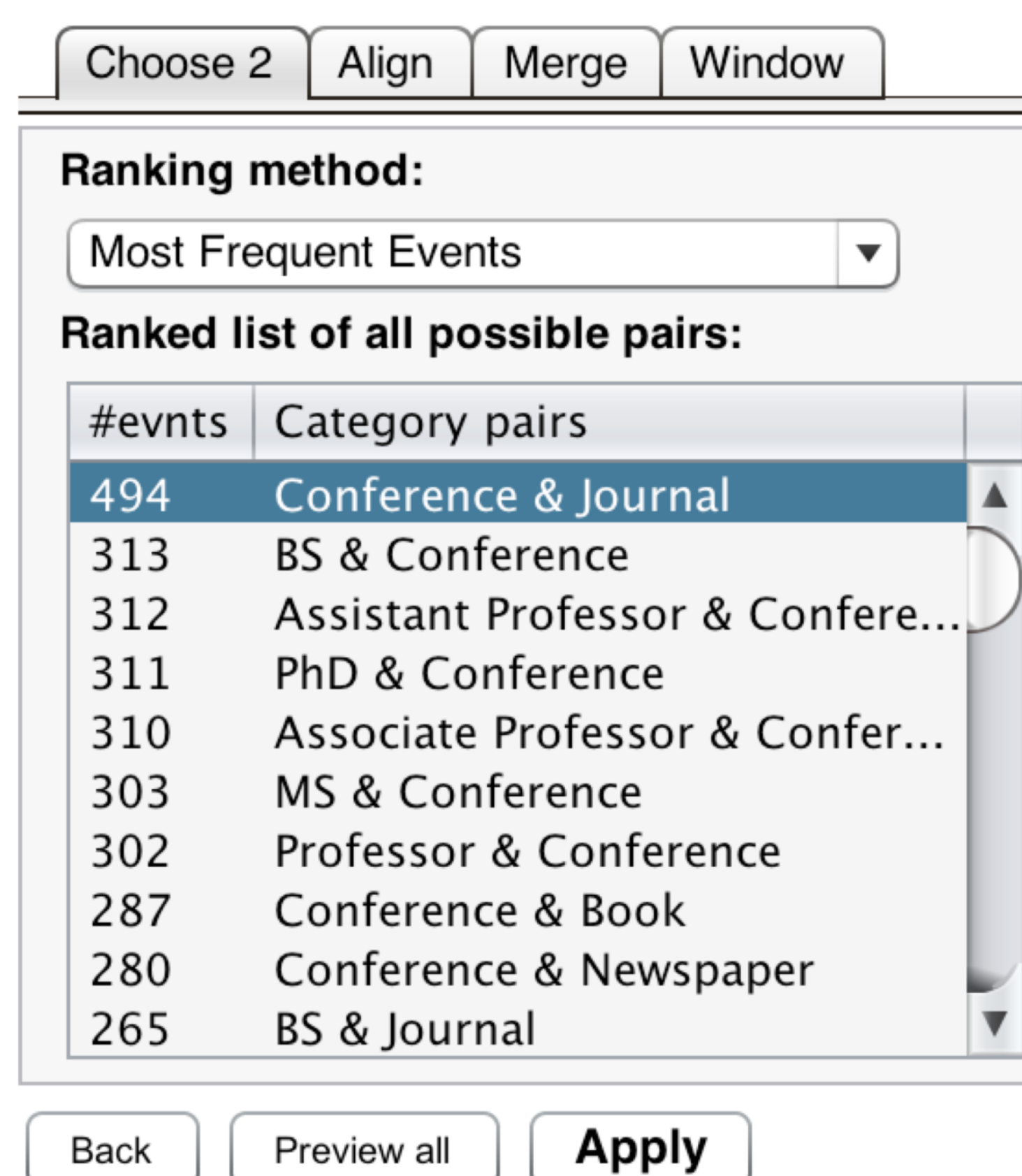
3. Provide an Event Category Matrix (ECM): Intended for expert users, the ECM displays overviews of every event category pair. This allows the user to explore complexity or identify outliers.
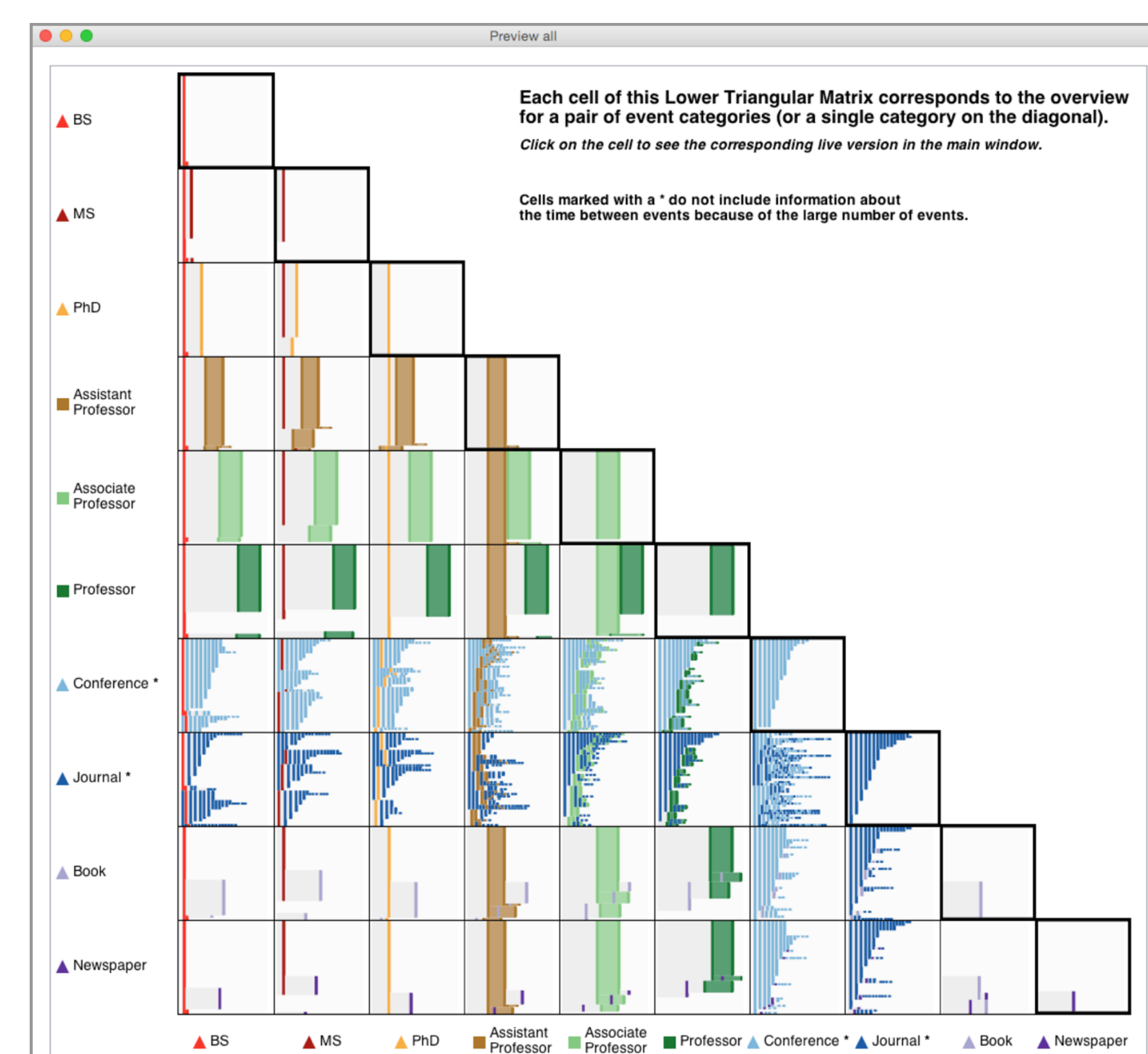
USABILITY TESTS

We refined these techniques and interfaces over the course of **2 usability studies** with **11 participants.** Participants were trained on the use of EventFlow and then shown the dataset shown here. Using a "think aloud" protocol, we captured **feedback on the use of each technique** and interface over a 40 minute session.

CONCLUSION

Our usability studies demonstrated that **all three techniques** were **learnable without training** and suggested that they may help event sequence analysts **reduce initial visual complexity,** thereby **accelerating data exploration.**

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