Visualizing Vocal Expression

Lead Student: Mary Pietrowicz
Faculty: Karrie Karahalios
University of Illinois

- How well can users interpret the expression visualizations?
- Which styles do users prefer for others' speech?
- Which styles do users prefer for their own speech?
- Which variations of the elements within the styles do users prefer, and why?

Muted Bright

Vowels: e.g., key, cut, cot
Obstruents: e.g., s, sh, ch, j, p, k
Sonorants: e.g., n, m, l, r, w, y

Monotone

Statement

Emphasis

Question

“Hello, World,” in Ribbons (top) and Bubbles (bottom). Bubble size and line thickness map to amplitude. Curve (vertical position) shows pitch contour.

“Hello, World,” in Threads (left) and Strips (right). Shows increasing qualitative inflection.

Signature and Phrase Gallery

Color Preference “cacophonous”

Interpretation Accuracy: Bubble and Ribbon Visualizations