# Collaborative Coupling over Tabletop Displays

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### Message

People work together over tables in many different ways

The *tools* we give them will allow or inhibit different working styles







### Collaborative Route Finding



# Filter Tool Shows All Data in ContextImage: Image: Ima







# Evaluating Our Tools

- How do people use the tools?
- How do people work together?
- How do people work independently?





### Analysis

- Triangulating data: field notes, video analysis, feedback sessions
- Multi-pass, open coding process

Findings

- 1. People transition between working styles frequently
- 2. Tools affect how people work
- 3. The closer you work, the closer you stand







Same Problem, Diff. Area

Different Problems





















### **Design Considerations**

- Consider coupling styles in tool design
- Facilitate transitions between coupling styles
- Mobile high resolution personal territories

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## Interacting with the lenses

- Metaphor: Window
- Tap and drag on the border to move
- Tap and drag on a corner to resize

## Are ShadowBoxes Useful?

- 2x2 design (w/ vs. w/o ShadowBoxes) x 2 (filters vs. lenses)
- Within-subjects



# Findings

- ShadowBoxes: Not useful at 1534 x 1024
- Tendency to work together: 76% of time













