COMS W4170
Collaboration 3

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Same time, same space

- **Single Display Groupware**
  - Support for multiple co-located users collaborating with a single display (but potentially separate input devices)
  - Need to avoid interference
    - Serial use: Single cursor (with “chalk passing”)
    - Parallel use: Multiple cursors
      - Use transparent widgets to minimize visual interference with other users (A. Zanella and S. Greenberg, *Proc. ECSW 2001*)
Same time, same space

- Single Display Groupware
  - Tabletop displays
    - Large
    - Horizontal
  - Users positioned around table
    - UI must support different orientations (e.g., rotate cursor)
  - Example: DiamondSpin tabletop toolkit
    - Documents constrained to face the nearest tabletop edge
    - C. Shen et al., Informing the design of direct-touch tabletops, *IEEE CG&A*, Sep/Oct 2006, 56–66
  - ACM Int. Conf. on Interactive Tabletops and Surfaces → ACM Interactive Surfaces and Spaces
    - http://iss2016.acm.org

http://www.meri.com/projects/diamondspin/