Multi-finger Interactions with Papers on Augmented Tabletops. Do-Lenh, et al. TEI. 2009.

What are the core research questions addressed by the work?

- Enabling more natural interaction on augmented tabletops using bare fingertips and physical papers in parallel

What motivates the work?

- Few studies exploring the potential of combining finger- and paper-based interactions
    - Potential of this combination in allowing greater flexibility in the way information is manipulated

How does the work understand the usage, capabilities, and limitations of paper?

- Paper is light, portable, tangible, inexpensive, intuitive to manipulate

What is the target application domain of the work?

- Appears to be general
- Evaluation conducted involves building concept maps

What are some proposed extensions to paper proposed by the work?

- Fingertip detection
- Touch detection
- Touch on paper detection

How are the proposed extensions implemented?

- A projector-camera system
    - Offers a projection size of 45x35 cm
    - Paper tracked with ARTag markers at resolution of 1280x960
    - Finger detection performed at 640x480
    - 7 frames per second
- Diffuse laser source for touch detection

What findings have been obtained from either the implementation process or an evaluation of the proposed system?

- System demonstrated through evaluation to be appealing and intuitive to use
- Stated technical limitations:
    - Limitations of a vision-based tracking system
        - Visual tag occlusion
        - Recognition errors
    - Limitations of projection
        - Limited field of view