PaperLink: A Technique for Hyperlinking from Real Paper to Electronic Content. Arai, et al. CHI. 1997.

What are the core research questions addressed by the work?

- Enabling establishment of links between paper and digital documents
- Adding some of the advantages of electronic materials to paper materials

What motivates the work?

If we could add some of the advantages of electronic materials to paper materials, for
example if we could use paper materials as interfaces to electronic materials, it might be
possible to combine some of the good properties of each into hybrid systems which
approach the convenience and ease of use of paper, while allowing access to the power
of computational media

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

- Paper is inexpensive, can be annotated easily, provides excellent readability properties, offers excellent ergonomic properties ("feel" of paper always beats that of electronic displays)
- Electronic presentation technologies allow us to create and publish great quantities of information, enables easy sharing, offer considerably more powerful capabilities such as searching, dynamic multimedia content, hyperlinking, easy reuse, enables computation

What is the target application domain of the work?

Applications appear broad, no target in mind during the development process

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

- Allows makers on paper, either with a highlighter or standard pen, to be associated with electronic content and/or assigned a meaning
 - Basically a hyperlinking mechanism
- Allows words on paper to be "picked up" and used as input

How are the proposed extensions implemented?

• Employs a video camera mounted pen that captures input that is sent to a desktop machine host. The host machine then processes the input accordingly.

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

- Technical limitations
 - o Capture field of view is limited
 - Recognition accuracy
 - Speed