The Audio Notebook: Pen and Paper Interactions with Structured Speech. Stifelman, et al. CHI. 2001.

What are the core research questions addressed by the work?

- Supporting information capture during a lecture, meeting, or interview

What motivates the work?

- We are presented with many situations where it is desirable to capture detailed accounts of a presentation or a conversation in our daily lives
- Advantages and disadvantages of paper note recording versus audio capture and retrospective extraction of information
- Goal: Retain original audio recording while allowing listener to quickly and easily access points of interest

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

- While written notes can not capture how things are said exactly and other aspects like emotion of speech, quality of voice, subtleties of accent and pauses, recorded information is time consuming and often frustrating to process
- Paper and pen: portable, tangible, flexible way of capturing information, widely used
    - Additional advantages: a sheet of paper can be quickly torn from a notebook, stuffed in one's pocket for easy access, handed to a friend, ideas can be quickly scribbled down on paper, faster, more accurate, more familiar

What is the target application domain of the work?

- Note-taking support

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

- Audio capture
- Supporting synchronization between written notes and digital audio recording
    - User-structured audio: Use of user's natural activity - writing and page turns - to implicitly index audio
        - High level: Mapping of time to space
    - Use of acoustic cues for structuring audio recordings

How are the proposed extensions implemented?

- Using a custom two-part system:
    - Backend: Microphone receiver, Macintosh Duo, Jaz drive
    - Frontend: Audio scrollbar, audio cursor, digitizing tablet, page detector, LCD display, backlight button, record indicator, button controls, and a built-in speaker