“What Was I Thinking?”: Memory Prosthesis
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For 32 million Americans who are currently taking three or more medications daily, \textit{forgetfulness} is the leading cause of under or over doses.
Schacter’s Seven “Sins” of Memory

Forgetting

1. **Transience** (memory fading over time)
2. **Absent-mindedness** (shallow processing, forgetting to do things)
3. **Blocking** (memories temporarily unavailable)

Distortion

4. **Misattribution** (right memory, wrong source)
5. **Suggestibility** (implanting memories, leading questions)
6. **Bias** (distortions and unconscious influences)
7. **Persistence** (pathological inability to forget)
To Address Transience & Blocking

- Recognize that a memory failure happened
- Want to make an effort to retrieve it
- Have a resource from which to retrieve
- Audio
- Location
- Email
- News
- Weather
- Calendar
- etc.

- Words
- Gender
- Speaker ID
- Laughter
- Overlap
- Pause
- Clarity
Need good ways to browse & search through one’s past
Design and evaluation of an audio-based searching & browsing tool intended for memory triggering
Peach wreck a nation
(i.e., “speech recognition”)

• Phonetic Searching

Audio Skimming

• Time-compressed Audio
“SpeechSkimmer”

Phoenetic Search

Brightness/confidence threshold

Speech Reco Transcript (poor WER)

Zoom

Stopword

Related Items, Gist

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- Shortcuts: Creating Small Worlds
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