Approaches to Segmentation

• Language-Model-based: LM score without and with punctuation:

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\begin{array}{l} P(\text{some sneakers I know}) \gtrless P(\text{some sneakers, I know}) \gtrless \\ \gtrless P(\text{some sneakers. I know}) \gtrless P(\text{some sneakers? I know}) \end{array}
```

- Sequence-labelling:
 - Label each word with punctuation that should follow it.
 - Many techniques possible: HMM, CRF, LSTM, ...
- Machine-translation:
 - Input: Text without punctuation.
 - Output: Text with punctuation.
 - Approaches: PBMT, NMT.

A critical decision whether to allow access to the sound:

• Delays, prosody, intonation are very informative.