Aikuma:
A mobile app for collaborative language documentation

Steven Bird[1,2], Florian Hanke[1], Oliver Adams[1], Haejoong Lee[2]
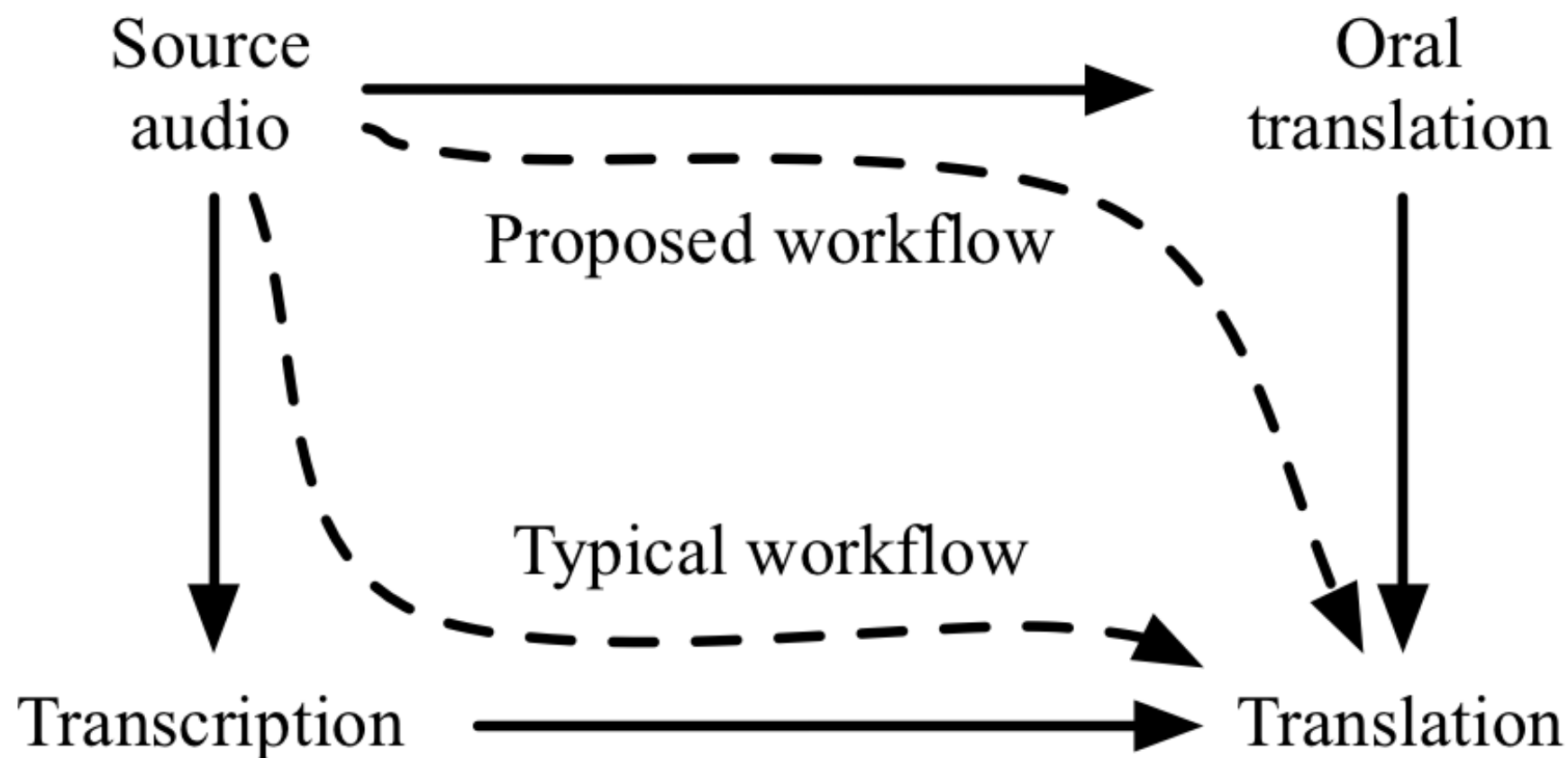[1]Department of Computing and Information Systems, University of Melbourne
[2]Linguistic Data Consortium, University of Pennsylvania

Google Play: install Aikuma

Postponing the Transcription Task

Source audio → Oral translation

Proposed workflow

Typical workflow

Source audio → Transcription → Translation

Thought Experiment: The future philologist

- time is shorter than we think

- what should we archive today?

- Boasian trilogy: texts, grammar, lexicon

- the primary resource?

Careful Respeaking

▸ Listen to an original recording and repeat what was said, slowly and carefully

▸ recordings made "in the wild"

▸ phonetic analysis (Bettinson 2013)

▸ enables us to postpone the transcription task

Language Documentation

- ▸ what it consists of

- ▸ who it involves

- ▸ the challenge

- ▸ ensuring interpretability
  - ▸ what was said; what it meant

Design Principles

▸ text free

▸ synchronisation

▸ metadata

Transcription (mk 1)

Transcription (mk 2)

Sharing and Archiving

Architecture 1:
Backup and synchronization for several devices
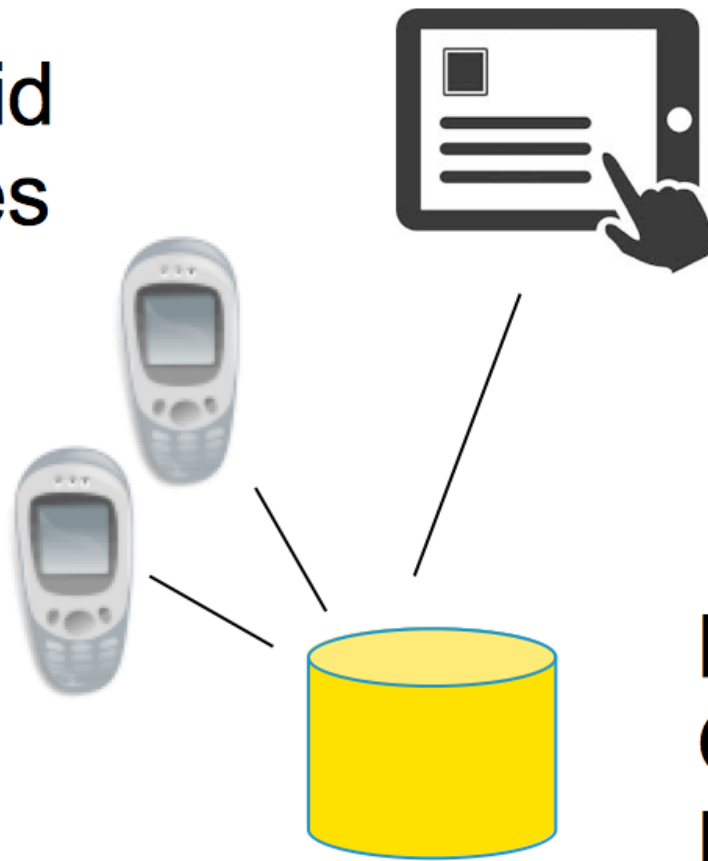
Architecture 2:
Village-based networking
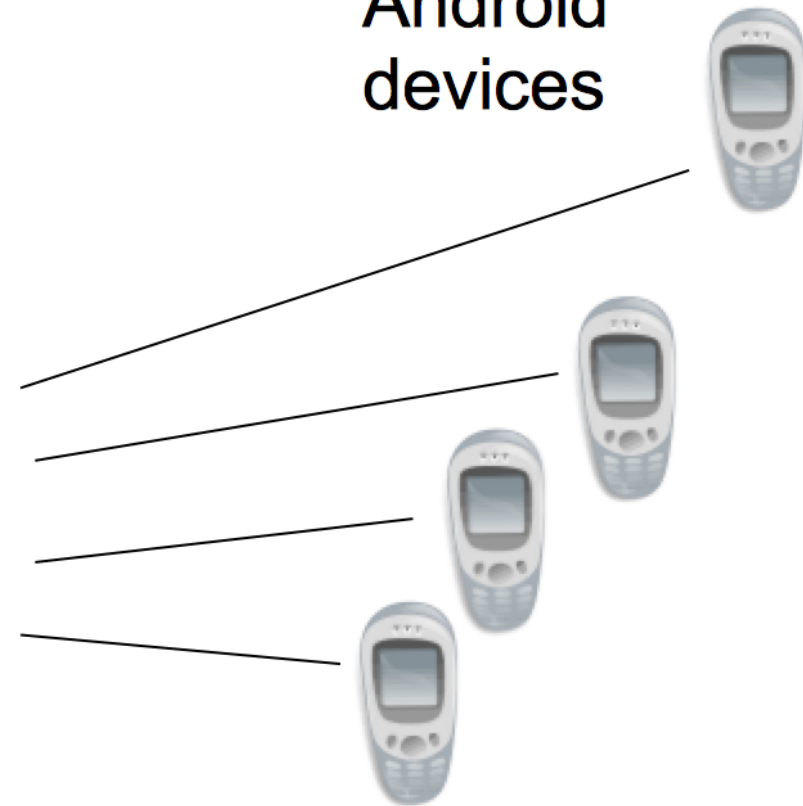
Architecture 3:
Cloud-based sharing

Cloud-Hosted metadata

Android devices

Personal Google Drives
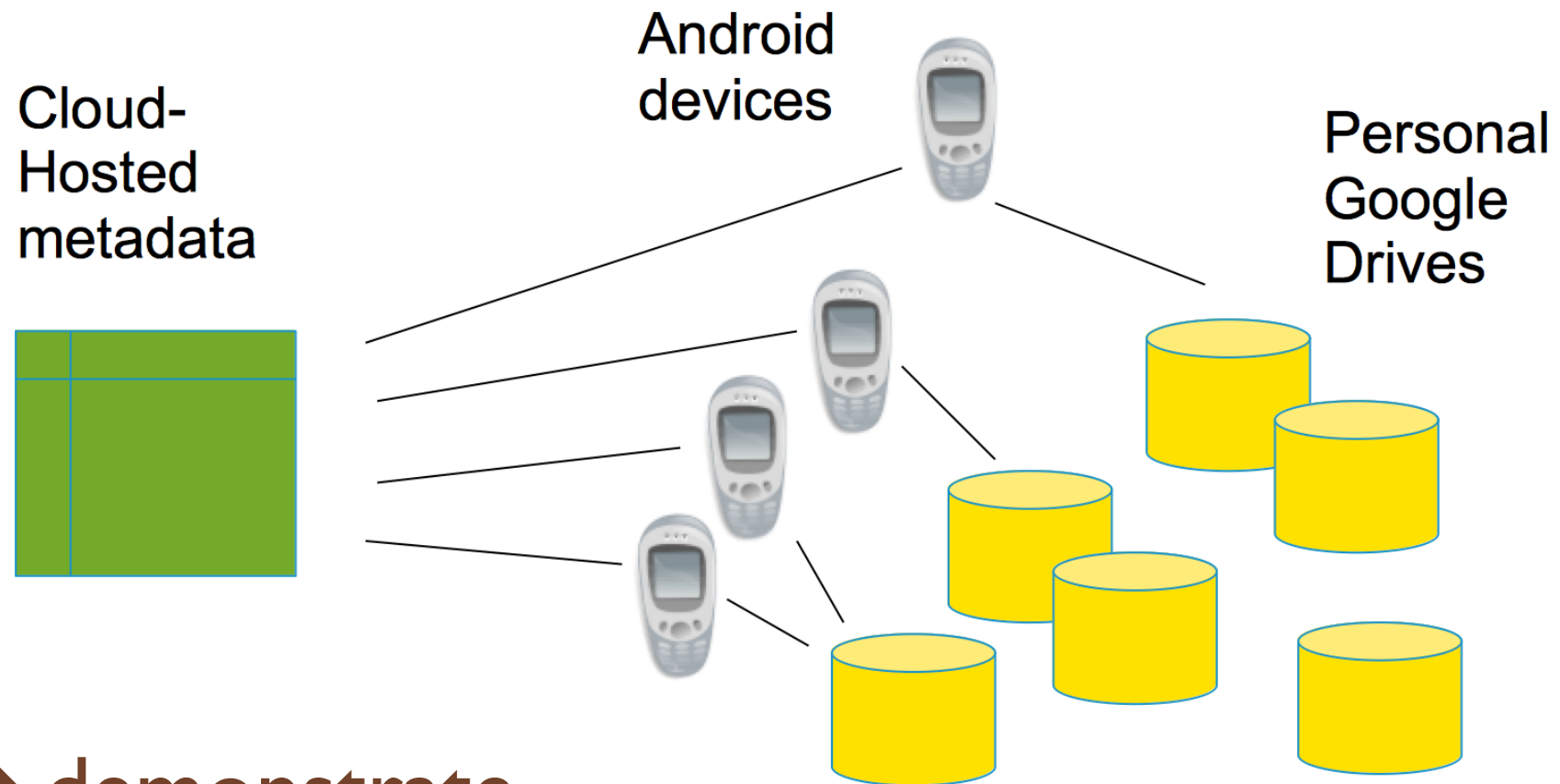
▶ demonstrate cloud server

Architecture 4: Preservation

▶ **not yet implemented**

Cloud-hosted metadata

Android devices

Personal Google Drives

Cloud server

Cloud storage

Internet Archive

SoundCloud
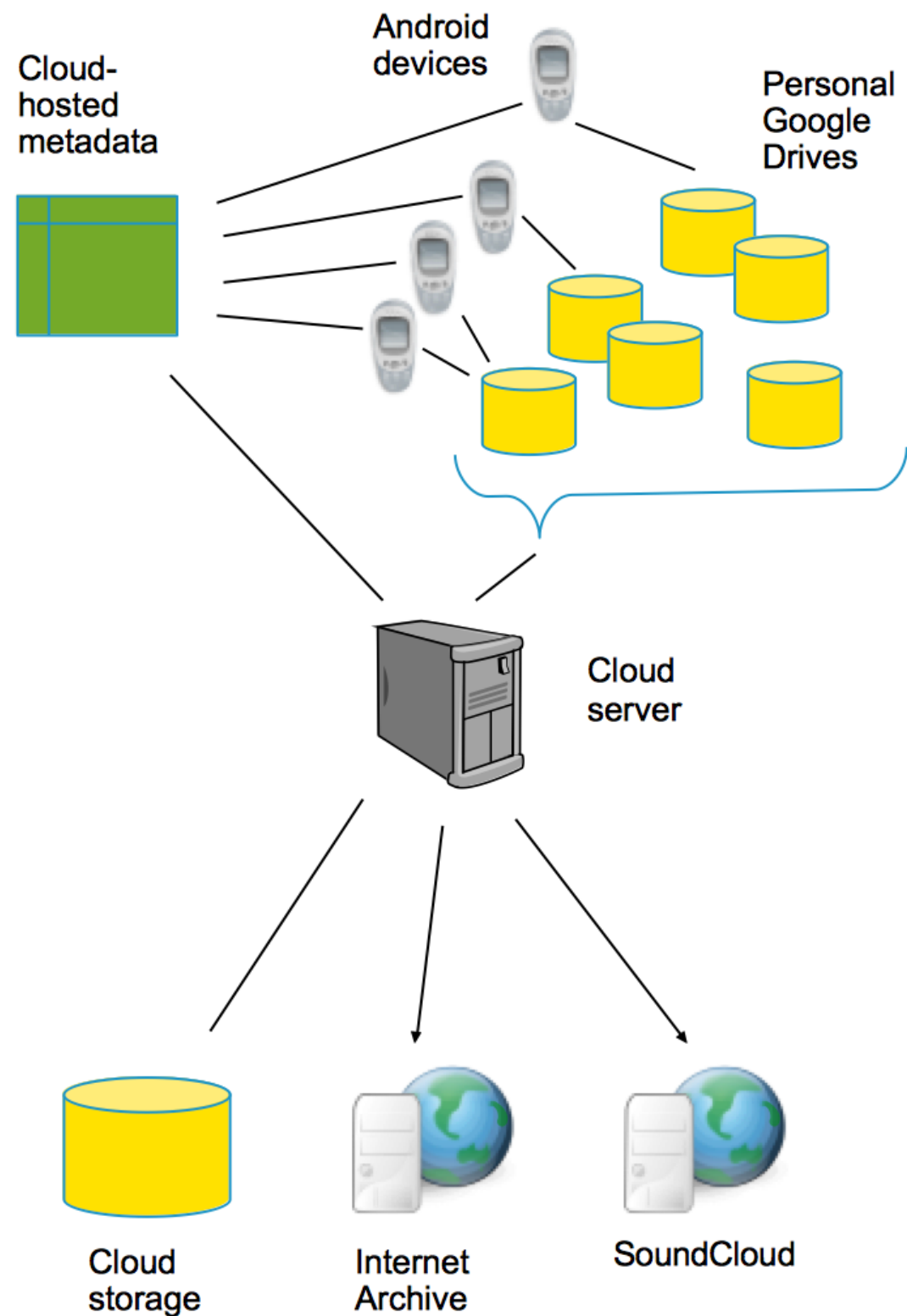
Ongoing work: More features

▸ video recording and playback

    ▸ commentary not yet supported

▸ Informed consent

    ▸ storage and dissemination
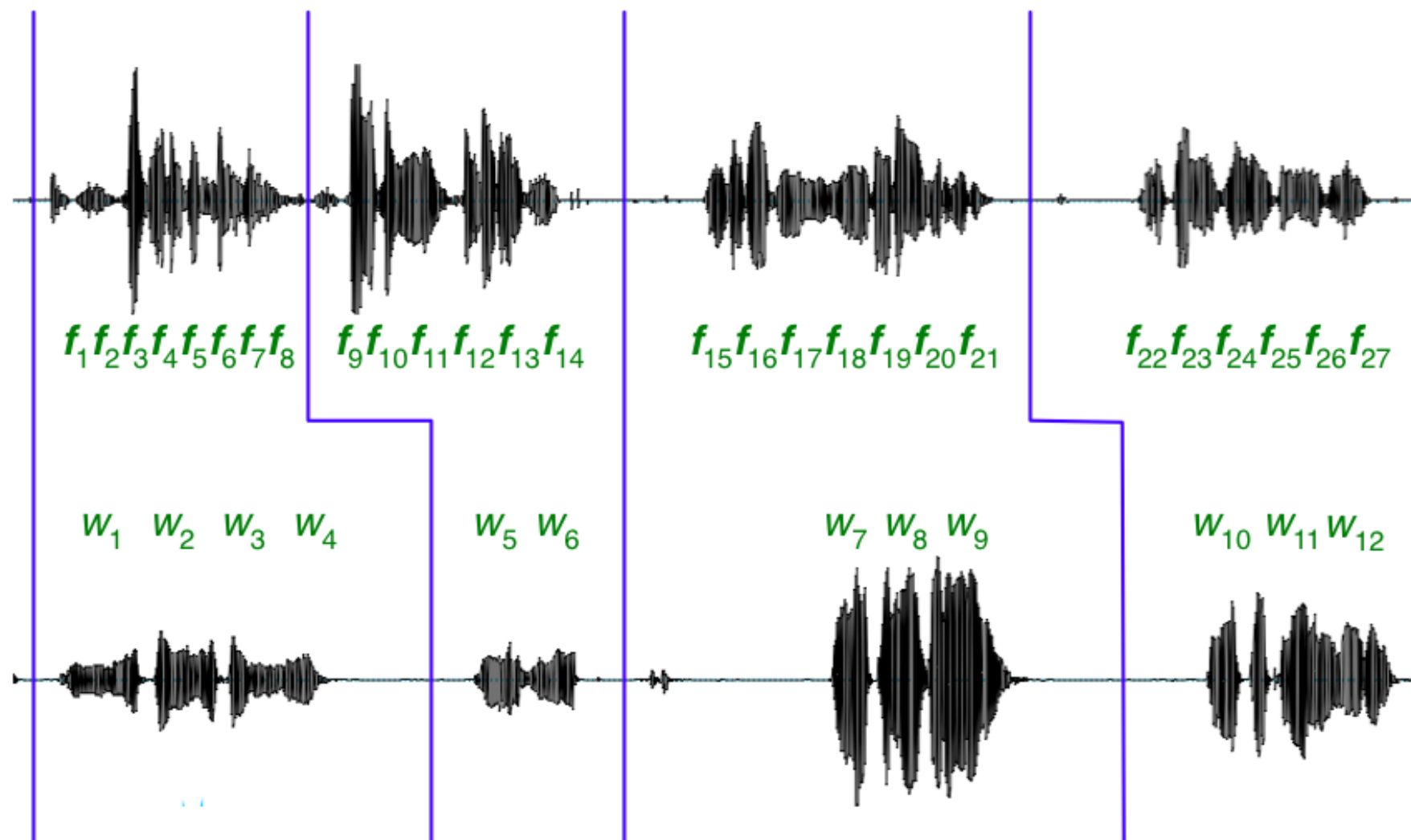
    ▸ documenting informed consent

▸ Lexical elicitation

Future work: applying MT algorithms

$f_1 f_2 f_3 f_4 f_5 f_6 f_7 f_8$　　$f_9 f_{10} f_{11} f_{12} f_{13} f_{14}$　　$f_{15} f_{16} f_{17} f_{18} f_{19} f_{20} f_{21}$　　$f_{22} f_{23} f_{24} f_{25} f_{26} f_{27}$

w_1　w_2　w_3　w_4　　　w_5　w_6　　　　w_7　w_8　w_9　　　　w_{10}　w_{11}　w_{12}

Conclusion

▸ what does it take to preserve a language?

▸ the allure of MT

▸ MT in a week

▸ contribute: lp20.org