Brief Meeting Summary

Progress with mapping reported. Was discussed fully in report sent round in advance of meeting, but research continues. Based on discussions at the meeting regarding dataset composition (i.e. unbalanced silent content due to each video having large periods of silence at the start and end), the data was adjusted with word alignment data to rebalance it, with research continuing. This work is currently being written up into an initial LNCS book chapter.

Action: Additional mapping research to be carried out, paper to be written

In addition, some discussion took place about the BSA conference poster, which was refined in subsequent weeks. This was presented successfully in April 2016.

There was also a discussion of the patch-based representation of the Gabor response. The potential of these features were discussed and were argued to be consistent, which was then backed up by practical tests with GRID corpus data. The next step was to create a demonstration of the behaviour of the patch lengths and heights with relation to the speech. One additional feature discussed by Roger was to use the rate of change of the Gabor phase angles as a potential feature. Since the meeting, there has been some progress with identifying the most appropriate Gabor patch.

Action: Continue Gabor investigation, consider different Gabor orientations and thresholds

Resynthesis. It was reported by Ricard and Jon that some progress had been made, and they had managed to reconstruct their resynthesis system (currently audio only). The next step is to look at the use of visual features, which could be done with concatenation of visual and audio features to build models, and also the identification of where and when visual information improves recognition and synthesis

Action: Continue research, investigate use of visual information for initial results

Key discussion outcomes

It was decided that to perform final evaluation of the systems, then it was decided to use the Chime 1 train, development, and test sets, which use the GRID corpus in variable noise levels, with data points indicated to ensure visual information can be used. This means that we can compare the results to audio-only results.

Another issue was where to store data so that we have a common repository, Ricard has set up a Git repository, which can be used to store scripts that will ensure we have replicated data wherever the it is accessed. However, there is the issue of where the data can be stored. Git has a Large File Size facility https://git-lfs.github.com/

Action: Investigate storage of data

Another issue was the website. We need Create a Google Site or Google Group with a calendar, docs, etc. We also need to update website more regularly

Action: Develop a google group. Update website (Andrew)

There is also the issue of the future corpus, what speech corpus, how much data etc. So we need enough data to build statistical models, and we need to decide what content, e.g. creating an AV-FAAF corpus. We have volunteers and facilities at Stirling, what can be done with them?

Action: Corpus decisions? By who?

Paper outputs. Proposed outputs:

- Short Filtering/mapping paper
- Biology spin of the filtering paper: show which Gabor orientations and scales contain the speech information
- Resynthesis paper
- Comparison method paper
- Integration paper
- Overall strategy paper to discuss more AV ideas?

Action: Overall area paper with ideas to be discussed by the PIs/CIs.

Speech workshop

Workshop next year:

- Dates:
- Venue: Stirling? Sheffield? Edinburgh?
- Satellite? Co-located with AVSP 2017?

Action: Think about this, make plans (all Cis and PIs)

- Agenda:
    - Morning business agenda: technical and admin stuff
    - Afternoon specific topic agenda: e.g. intelligibility
- Partners - Invite with advance
    - Bill: AV intelligibility tests and clinical consulting
    - Peter: AV intelligibility tests and hearing aid devices

Action: Arrange next meeting, arrange agenda, contact partners in ADVANCE.

Challenge:

- Talk to John Culling and Simon King to discuss about Audio-(Visual) Hearing Aid Challenges
- Listening test based evaluation
- Phonak's challenge sponsorship

Action: See above.