Language learning with a humanoid robot

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Pink the robot learns Narungga.

Narungga

- The Narungga language was a "sleeping" language that belongs to the Narungga people of Yorke Peninsula of South Australia.
- Tania Wanganeen is currently the only fluent speaker of Narungga.
- Tania worked closely with a linguist with the aim of awakening the language.

NAO Project

- 3 year project, collaboration between three universities (UQ, SUT and QUT) and The Association of Independent Schools South Australia (AISSA).
- Evaluate how humanoid robots are used in the early childhood, primary and secondary school curricula and;
- understand how these devices are used by teachers to promote student engagement and deep learning.

The School

- 240 students Foundation-Year 9, 22% Indigenous students.
- The school wanted to integrate Narungga language and culture as part of the teaching and learning within the school community.
- Wanted to improve student engagement and attendance.

Results

- Improved attendance rate.
- Increased pride by the Aboriginal students in the Narungga language and culture.
- Students are speaking and practising Narungga in the school yard.
- Students led learning.
- Deep language learning.
- NAO speech does not easily recognise Narungga sounds.

"So much more meaningful than what we could do with just dictionaries and putting a few words up around the room"
David Field, Principal

"Narungga language has been the drive for working with Pink"
Rebecca Davey, Teacher

References

- Involving everyone: Adaptive technology "Awakens" ancient language, Keane, T., Williams, M., Boden, M., Chalmers, C., in submission.

Future Work

- Investigate; how to document student work with the robots;
- cheaper form of humanoid robot so the school can afford robots.
- Develop interactive educational applications building on the pedagogies the school developed in the project.
- Develop a "smarter" dialogue between student and robot.

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