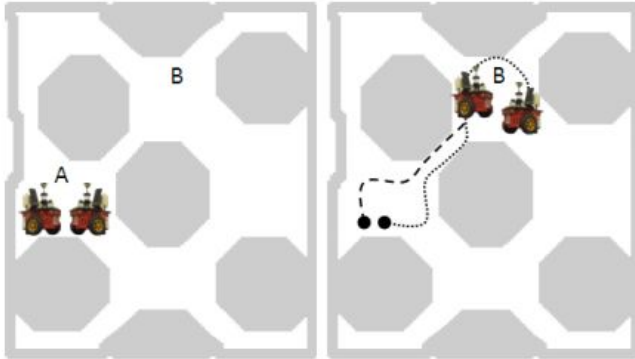


Robots learn to create language

17 May 2011, by Katie Gatto



The go-to game allows the agents to test their toponymic lexicon by specifying a target location (B) to meet at. Image credit: Ruth Schulz

(PhysOrg.com) -- Communication is a vital part of any task that has to be done by more than one individual. That is why humans in every corner of the world have created their own complex languages that help us share the goal. As it turns out, we are not alone in that need, or in our ability to create a language of our own.

[Researchers](#) at the University of Queensland and Queensland University of Technology [have created](#) a pair of robots who are creating their own language. The bots, which are being taught how to speak but not given specific languages, are learning to create a lexicon of their own.

The bots, which have been aptly named Lingodroids, consist of a fairly basic setup when it comes to hardware. The robot consists of a [mobile platform](#) that has been equipped with a camera, a laser range finder, and a sonar setup that allows for the mapping and avoidance of obstacle. In order to allow them to talk, they are also equipped with a [microphone](#) and speakers.

The Lingodroids develop language in the way that most human languages have probably developed, but making up words to name the places that they

visit, and then share that name with the other around you. The bots basically find something that they have not seen in the past, create a word based on a random combination of [syllables](#), and then tell the other [robot](#) the word that they have just created. Then the robots memory files will link to the word to that specific location.

Currently the robots are learning new words by [playing games](#), and can only name locations, but the researchers hope that in the future these Lingodroids will be able to create a more complex language.

More information: Research paper: Schulz, R., Wyeth, G., & Wiles, J. (In Press) [Are we there yet? Grounding temporal concepts in shared journeys.](#) [IEEE Transactions on Autonomous Mental Development](#)

More info: itee.uq.edu.au/~ruth/Lingodroids.htm

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APA citation: Robots learn to create language (2011, May 17) retrieved 27 November 2020 from <https://phys.org/news/2011-05-robots-language.html>

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