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## Sharing a joke could help man and robot interact

01 August 2007

NewScientist.com news service

Michael Reilly

A MAN walks into a bar: "Ouch!" You might not find it funny, but at least you got the joke. That's more than can be said for computers, which, despite radical advances in artificial intelligence, remain notably devoid of a funny bone.

Previously AI researchers have tended not to try mimicking humour, largely because the human sense of humour is [so subjective and complex](#), making it difficult to program.

Now Julia Taylor and Lawrence Mazlack of the University of Cincinnati in Ohio have built a computer program or "bot" that is able to get a specific type of joke - one whose crux is a simple pun. They say this budding cyber wit could lend a sense of humour to physical robots acting as human companions or helpers, which will need to be able to spot jokes if they are to be accepted and not just annoy people. The bot is also teasing apart why some people laugh at a joke, such as the one above, when most just groan.

To teach the program to spot jokes, the researchers first gave it a database of words, extracted from a children's dictionary to keep things simple, and then supplied examples of how words can be related to one another in different ways to create different meanings. When presented with a new passage, the program uses that knowledge to work out how those new words relate to each other and what they likely mean. When it finds a word that doesn't seem to fit with its surroundings, it searches a digital pronunciation guide for similar-sounding words. If any of those words fits in better with the rest of the sentence, it flags the passage as a joke. The result is a bot that "gets" jokes that turn on a simple pun.

Taylor presented the bot at the American Association for Artificial Intelligence conference in Vancouver, Canada, last week but stresses that it does still miss some puns. And of course, there are many jokes that aren't based on puns, which the bot doesn't get (see "Robot humour"). Taylor notes that past experiences are often the key to why some people find things hilarious when others don't. "If you've been in a car accident, you probably won't find a joke about a car accident funny," she says. She is now working to personalise the bot's sense of humour by flagging certain links between words as either funny or not, depending on the experiences of people it might converse with.

Meanwhile [Rada Mihalcea](#) and colleagues at the University of North Texas in Denton have built a different kind of humour-spotting bot. Instead of working out why a sentence might be funny, it learns the frequencies of words that are found in jokes, and uses that to identify humour. "We got a lot of 'can't', 'don't', 'drunk' and 'poor'," Mihalcea says. "People like laughing about bad things."

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