Defining Words with Words

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Games With a Purpose

- Annotations as a **byproduct** of gameplay
- Jurgens and Navigli (2014), von Ahn et al. (2006), …
- However, suffers from shoehorning

Our strategy

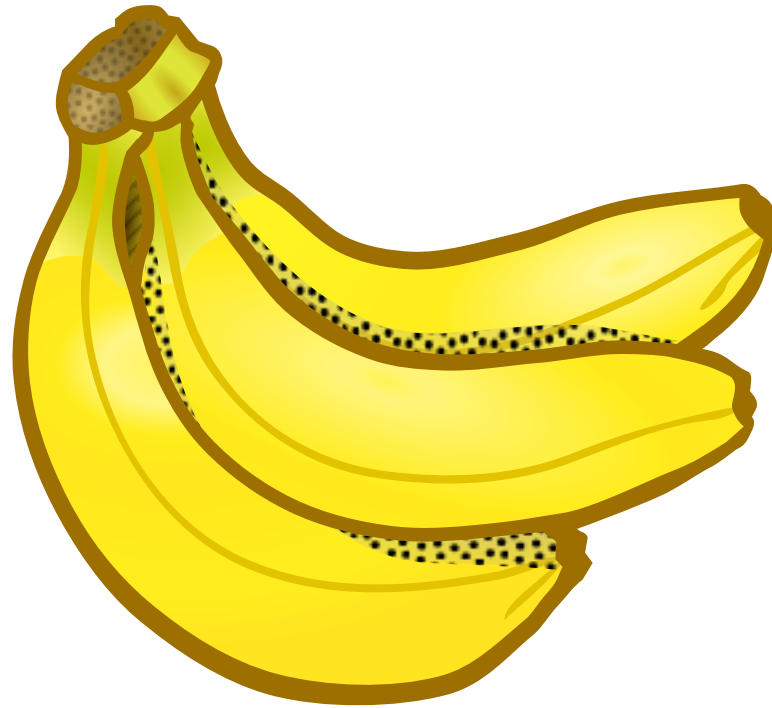Use an **existing** language game that captures **semantic phenomena** as inspiration.

Pyramid

- 2nd only to "Jeopardy!"

Let's Play!

1. Fruit
2. Yellow

Let's Play Again!

1. Freedom
2. Burger

The "Dictionary" Hypothesis

Words are **similar** if they have **similar definitions**.

Meet the Word Sheriff

Sound Off

You are a guesser!
5 clues allowed

Me
23 (+ 0)

Player
30 (+ 0)

The clues provided are:
1. binding
2. legal

Your current guesses are:
1. book

contract | Add guess

Player
50 (+ 10)

Clue: legal

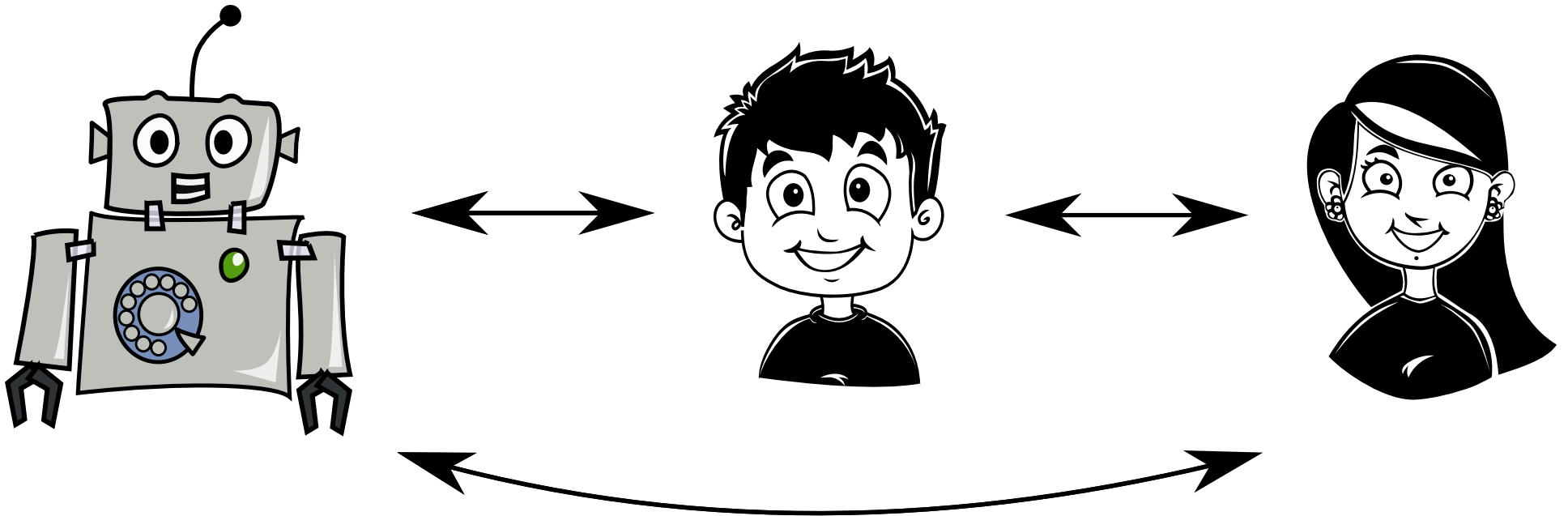11 seconds

Player
50 (+ 50)

http://comp3096.herokuapp.com/

Initial Limited Release

- 5-day release within the UCL CS department
- 246 games played
- 85% stated they would play again

Psycholinguistic Analysis

- *Hypernymy:* animal, horn ↦ rhinoceros
- *Antonymy:* win ↦ lose
- *Background knowledge:* teeth, tongue ↦ mouth
- *Compositional:* japanese, spice ↦ wasabi

"Communicative" Evaluation

- Essence of language: communication
- Learning to **infer** and **explain**

Next steps

- "Professional" user-interface
- User studies
- Vocabulary expansion

Thank you for your attention

ご清聴ありがとうございました

Tack för er uppmärksamhet

Comments and criticism is most welcome

Word Associations

- "Say the first word that springs to mind"
- Example: man ↦ woman
- Key difference, no *goal* state

Do people play language-based games?

- "Words With Friends" (2009): 10 - 50 million installs
- "WordBrain" (2013): 10 - 50 million installs
- "Codenames" (2015): #19 on BoardGameGeek