

MANY CHEERFUL FACTS

presents

Mnemonic Constructs: An Approach to Artificial Intelligence

a talk by John Oberlin

13:10 – 14:00 on Monday, November 19 (ie. **today**), in room 1015.

The field of Artificial Intelligence has been stagnating for some time now. Recent advances have relied upon the steady increase in available computing power as opposed to growth of theory, which has essentially remained the same since the seventies. Where is my digital butler, my intelligent agent, my robot overlord? We hope to address these and other questions without touching upon traditional A.I. topics. Our investigation will manifest threefold.

First, we examine the senses in all of their vagaries. The neocortex is responsible for processing all of our sensory perception. This hints that there is a universal model applicable to our minds' classification of input, from touch to sight to sound.

What if we take generic approach to classifying perception?? What if we don't?

One model of the human thought process views the brain as driven memory. Where is it going and who is riding shotgun? Many people feel that humans do much, if not all, of their thought and reasoning by means of analogies. This seems to mesh well with the intent to describe new phenomena in terms of those previously explored. We will investigate the notion of a categorical approach to literary devices and its possible utility in theory generation.

*I am the very model of a modern Major General,
I've information vegetable, animal, and mineral,
I know the kings of England, and I quote the fights historical
From Marathon to Waterloo, in order categorical;
I'm very well acquainted, too, with matters mathematical,
I understand equations, both the simple and quadratical,
About binomial theorem I'm teeming with a lot o' news,
With many cheerful facts about the square of the hypotenuse!*

— Gilbert & Sullivan, *P o P*

The website for Many Cheerful Facts is
<http://www.math.berkeley.edu/~mcf>