Hierarchical Temporal Memory

A Theoretical Framework for the Neocortex

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LessWrong Community Weekend 2019

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Sparse Distributed Representation

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Sparse Distributed Representation

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What is 01100101?

What is 01100101? Could be either one of:

What is `01100101`? Could be either one of:

- Booleans

  (`False, True, True, False,...`)

Data Saving - Computer Science Solution

What is 01100101? Could be either one of:

- Booleans

  (False, True, True, False,...)

- Integer (101)

Data Saving - Computer Science Solution

What is 01100101? Could be either one of:

- Booleans

  (False, True, True, False,...)
- Integer (101)
- Float (3328)

Data Saving - Computer Science Solution

What is 01100101? Could be either one of:

- Booleans

  (False, True, True, False,...)
- Integer (101)
- Float (3328)
- (Byte-) String ('e')

Data Saving - Computer Science Solution

What is 01100101? Could be either one of:

- Booleans

  (False, True, True, False,...)
- Integer (101)
- Float (3328)
- (Byte-) String ('e')
- Pointer to something else

Data Saving - Computer Science Solution

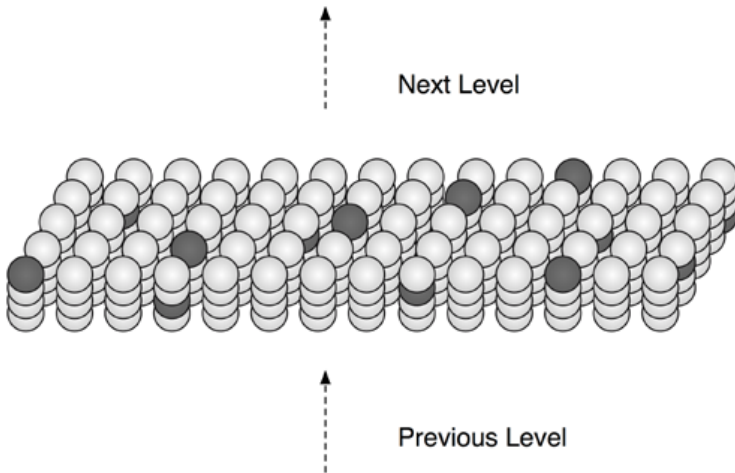What is 01100101? Could be either one of:

- Booleans

  (False, True, True, False,...)
- Integer (101)
- Float (3328)
- (Byte-) String ('e')
- Pointer to something else
- Part of some other Datastructure

Biologically, this does not work out.

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We use only 10% of our Brain, right?

Sparse Distributed Representation - Example

- Datastructure of the Brain

Sparse Distributed Representation - Introduction

- Datastructure of the Brain
- Sparse (around 2% are active)

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- Distributed (clusters are somewhat rare)

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- Inhibitory Mechanisms

- Datastructure of the Brain

- Sparse (around 2% are active)

- Distributed (clusters are somewhat rare)

- Inhibitory Mechanisms

- Neuron States actually have 'Meaning'

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Sparse Distributed Representation

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Sources i

The slides are online: `https://github.com/fkarg/things-to-talk-about/blob/master/htm/main.pdf`

Drop me a mail: fkarg10@gmail.com

End

Additional slide

without numbering, does not show up in normal
numbers