

Introduction

Lecture slides for Chapter 1 of *Deep Learning*

www.deeplearningbook.org

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Representations Matter

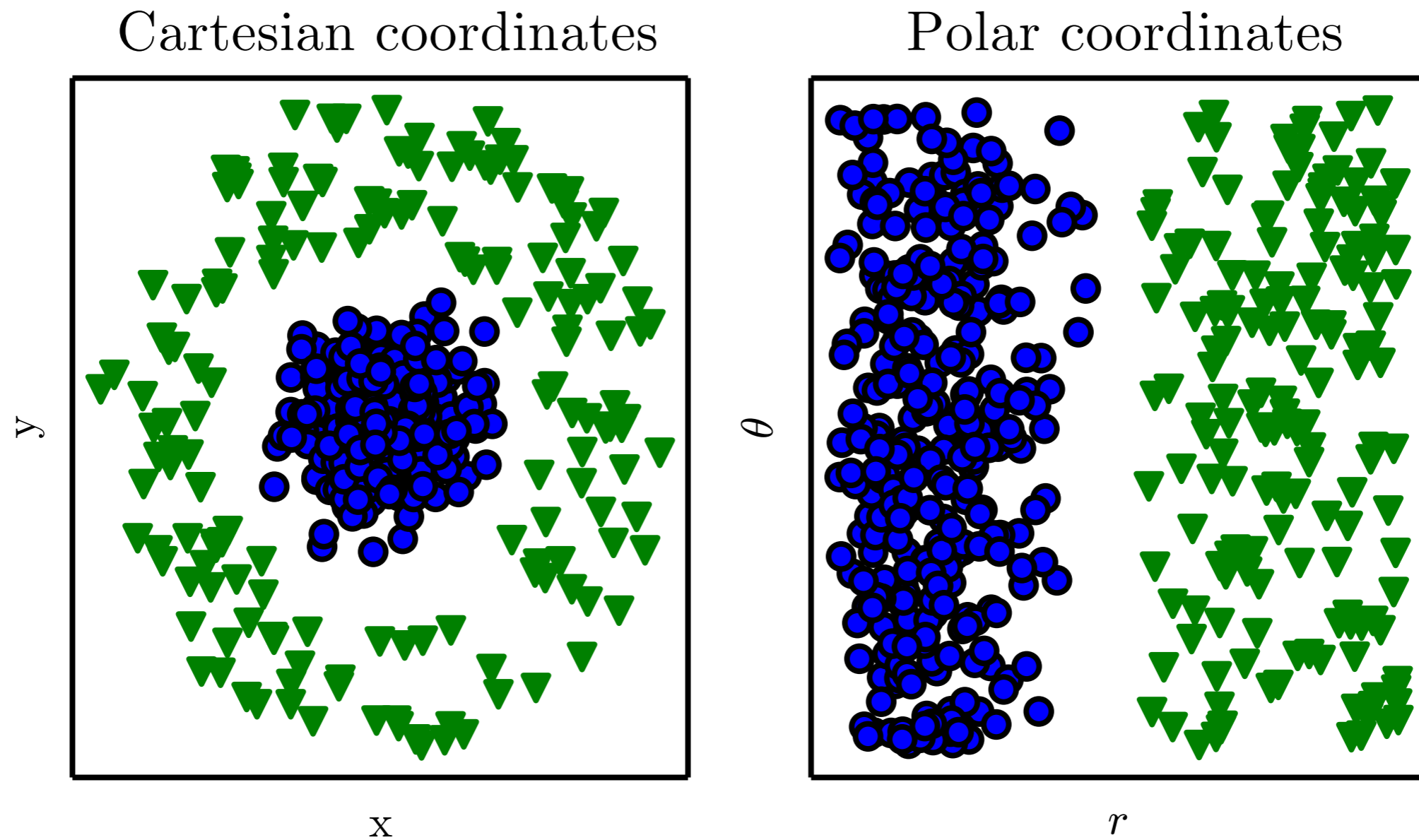


Figure 1.1

Depth: Repeated Composition

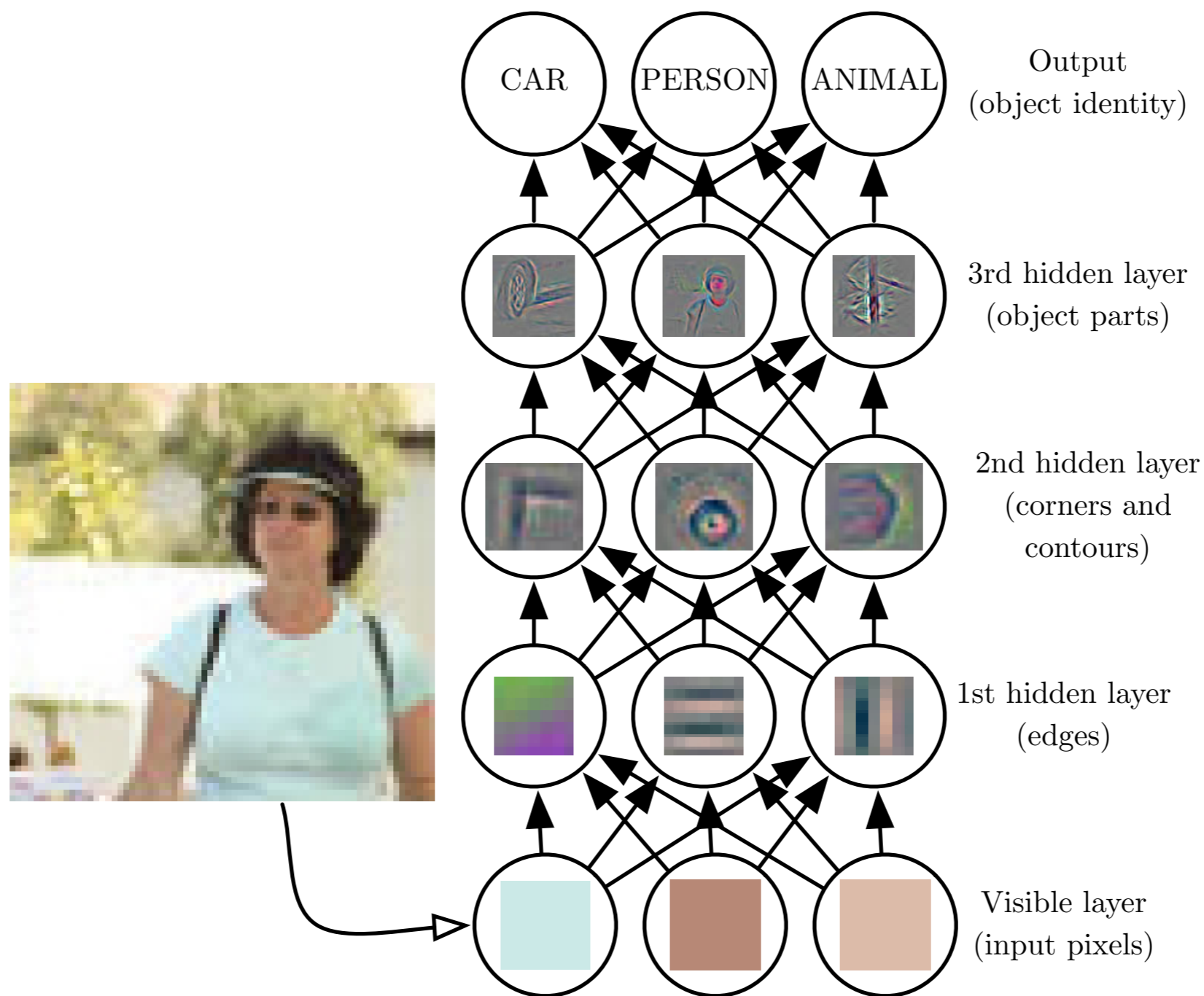


Figure 1.2

Computational Graphs

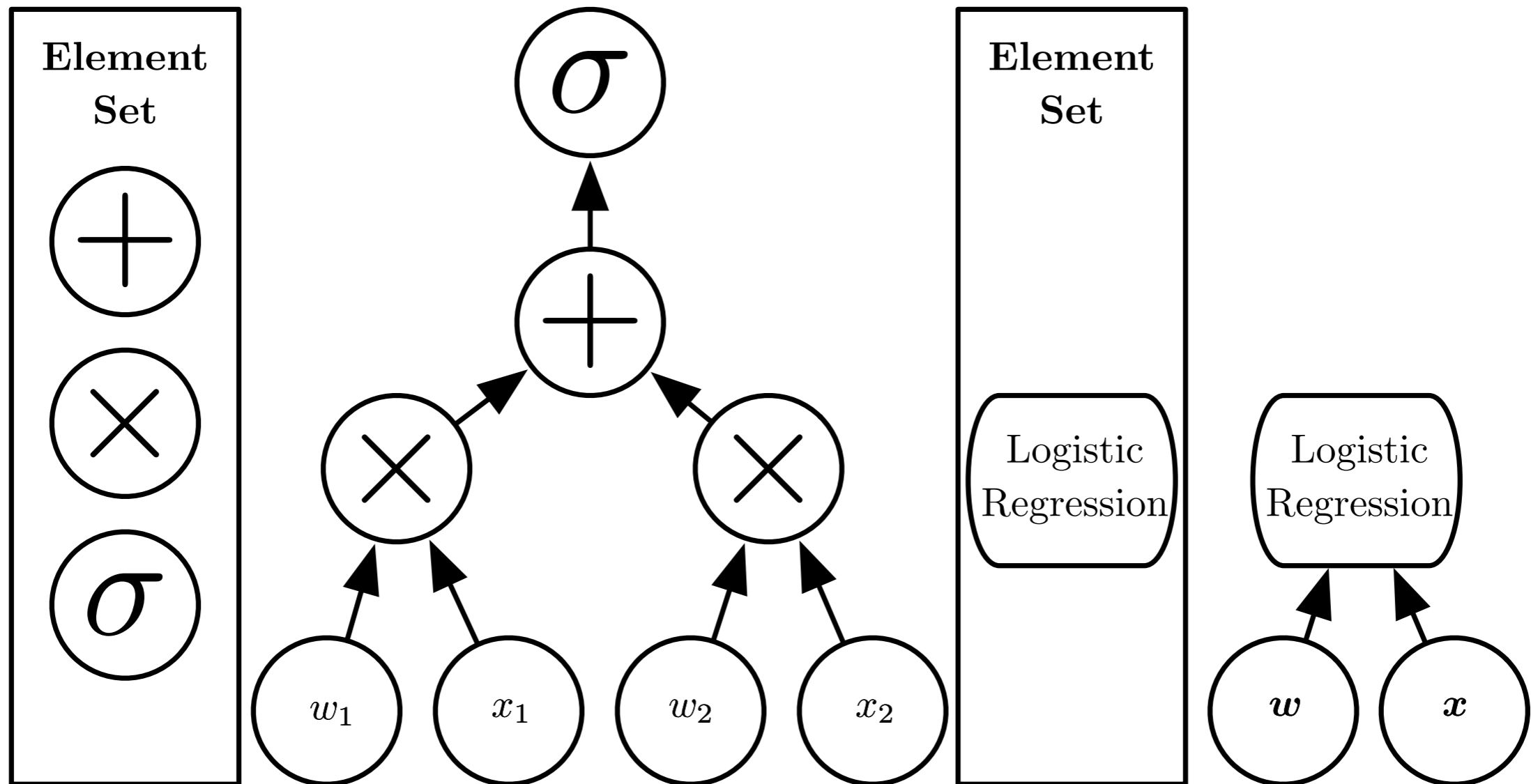


Figure 1.3

Machine Learning and AI

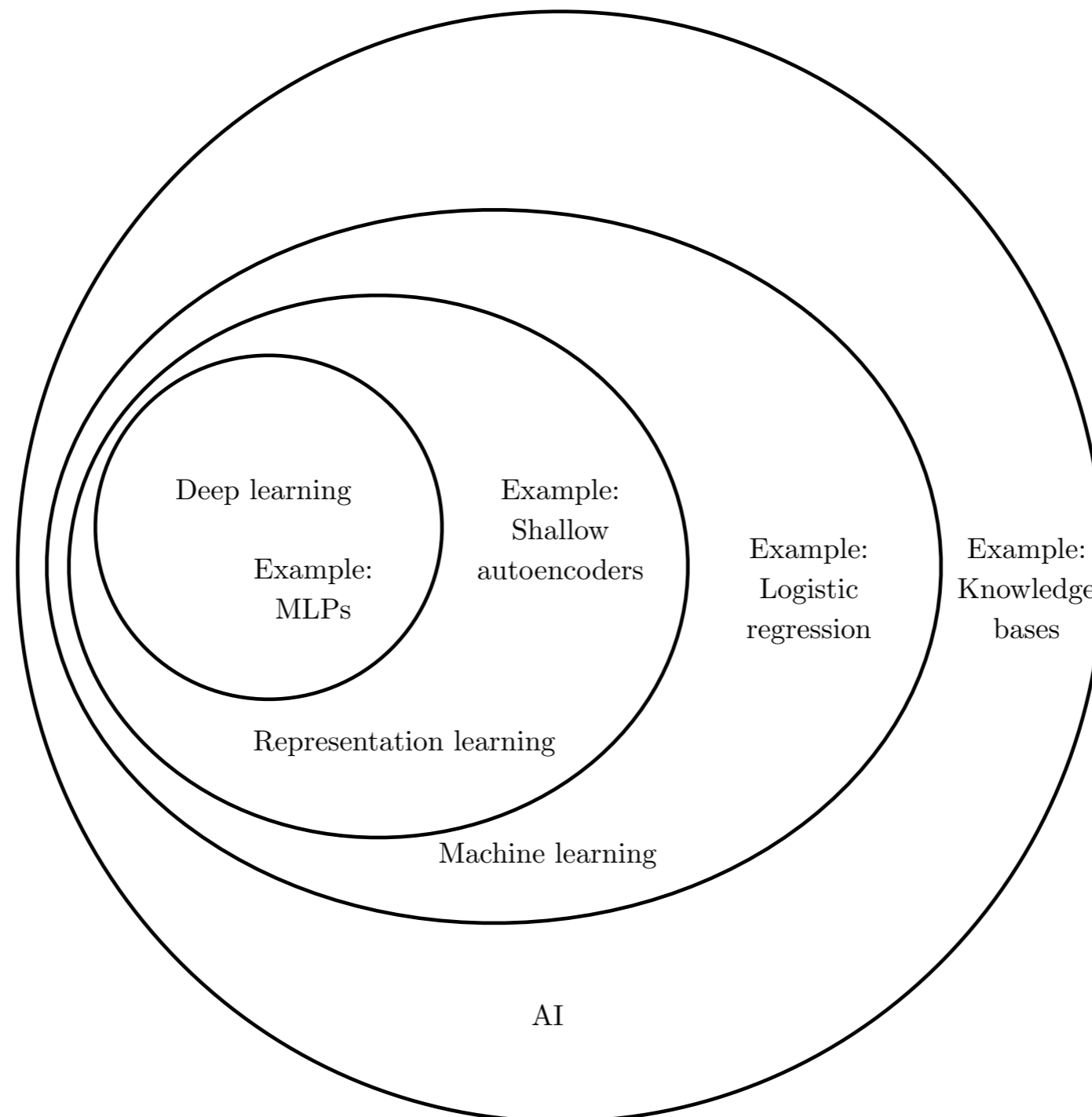
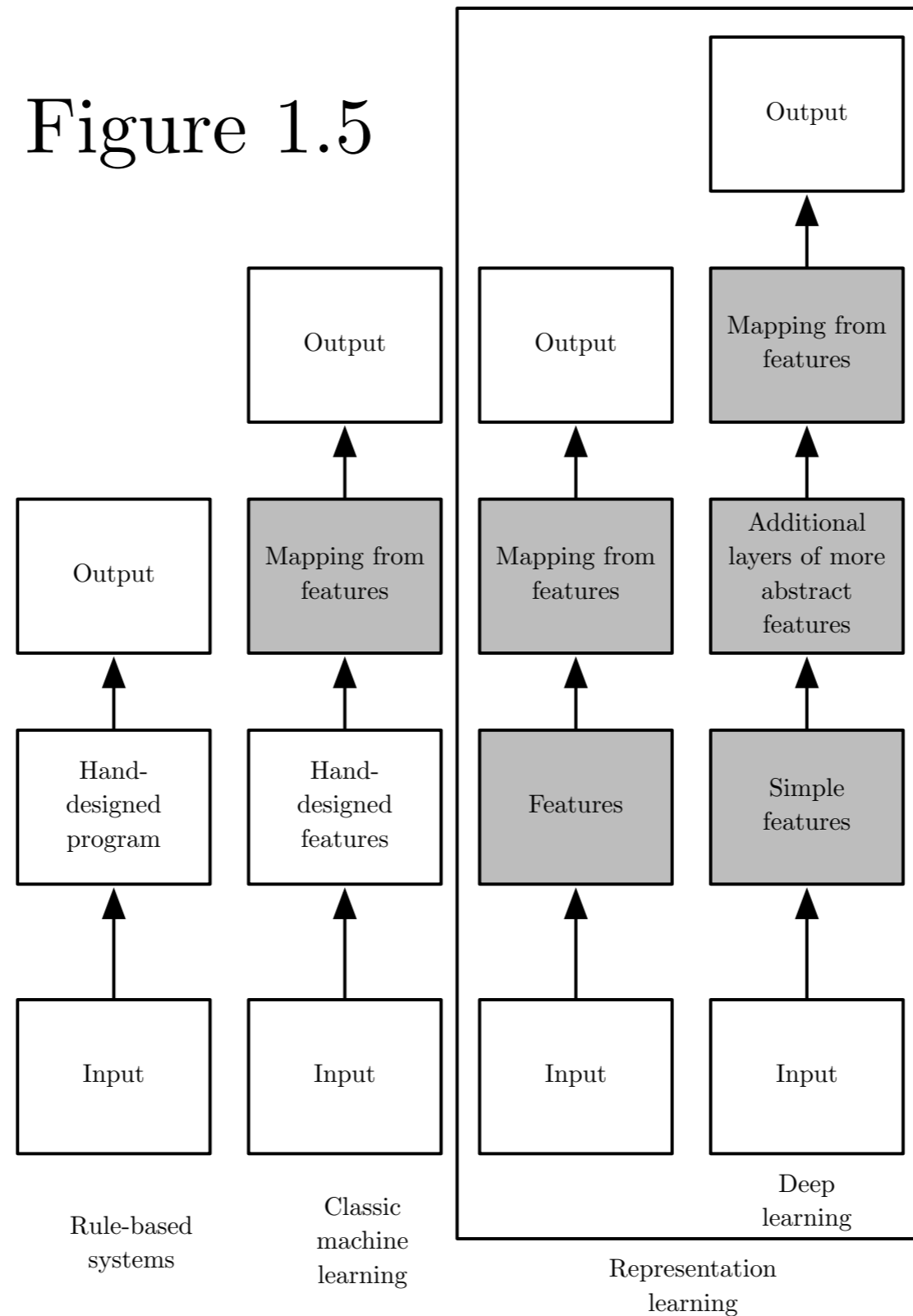


Figure 1.4

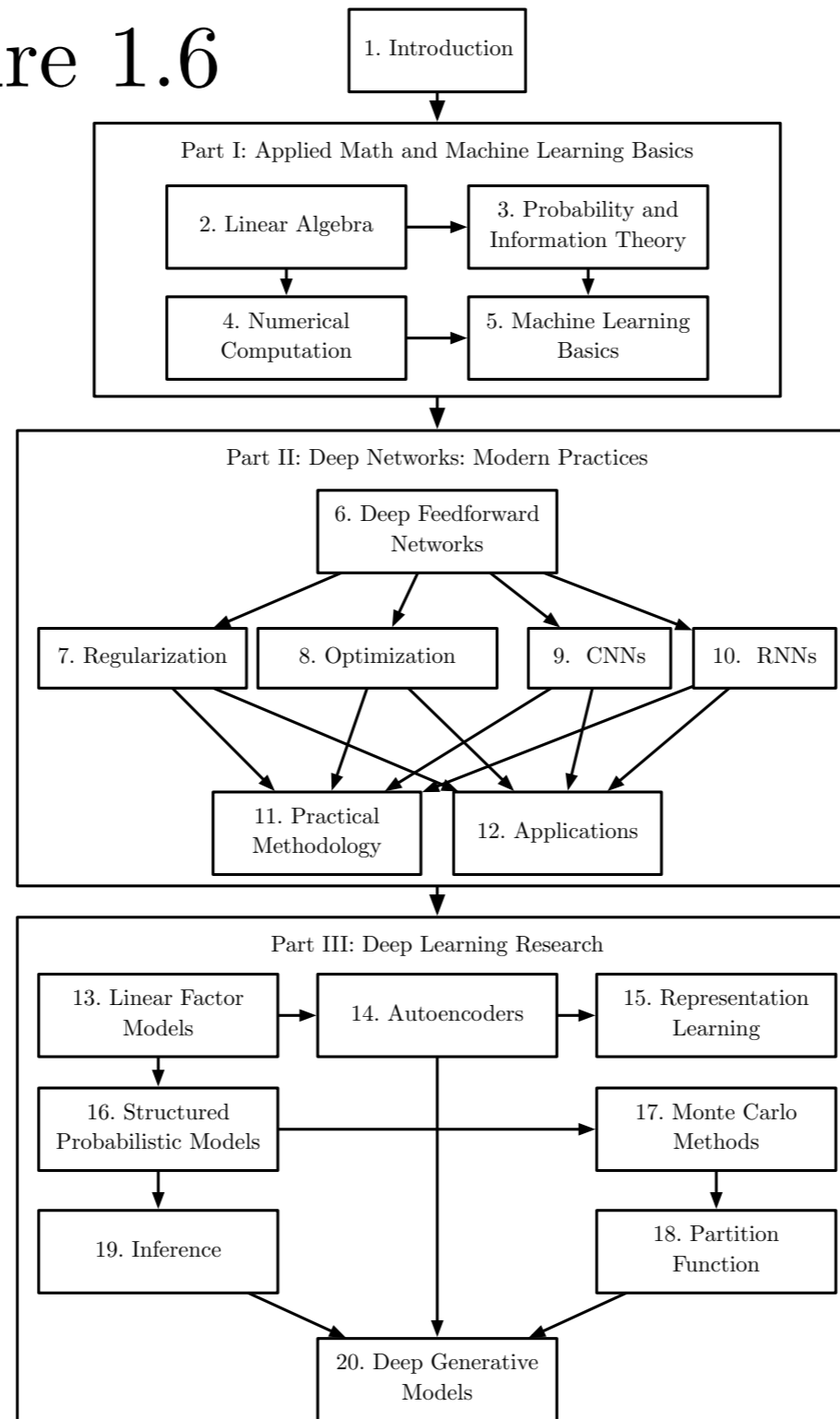
Learning Multiple Components

Figure 1.5



Organization of the Book

Figure 1.6



Historical Waves

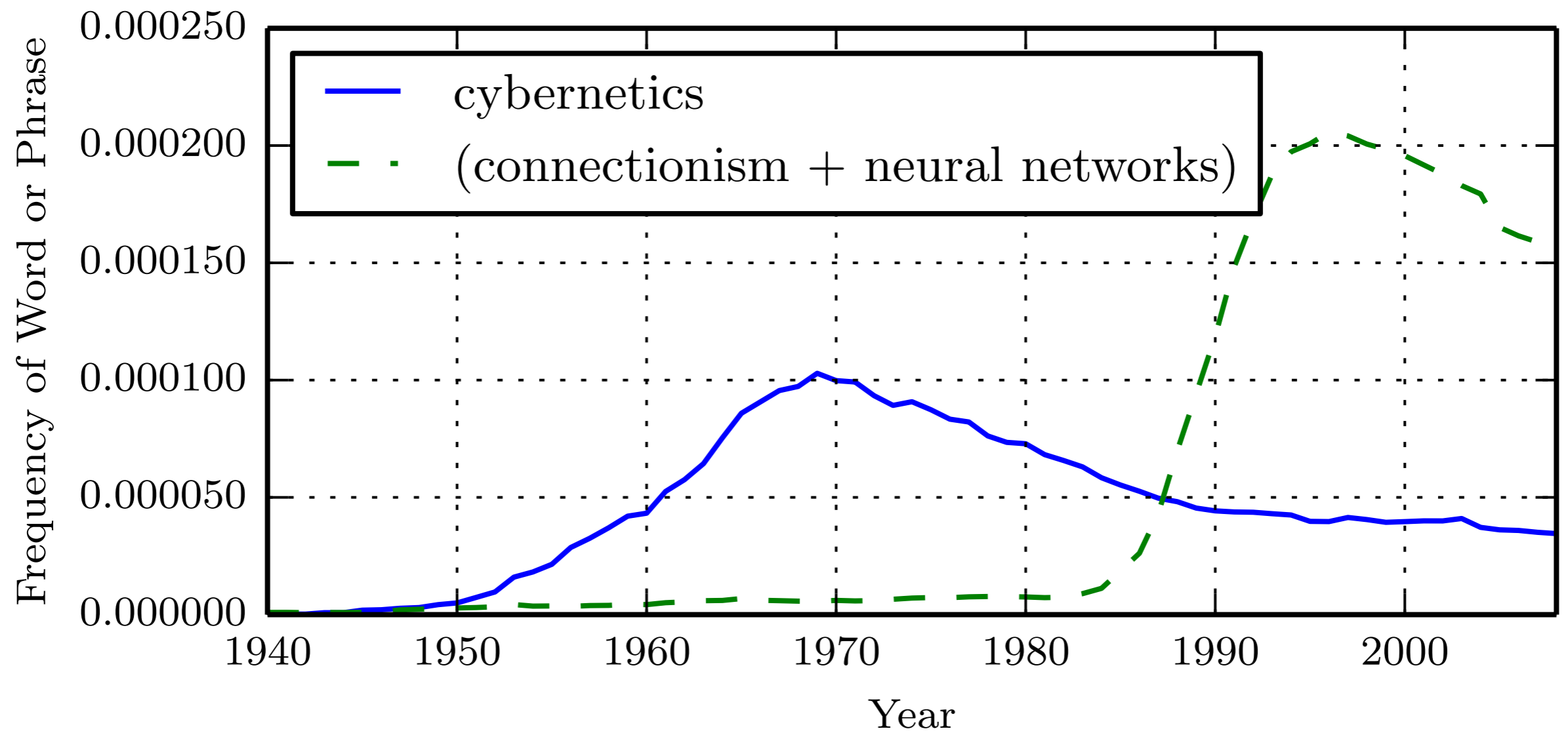


Figure 1.7

Historical Trends: Growing Datasets

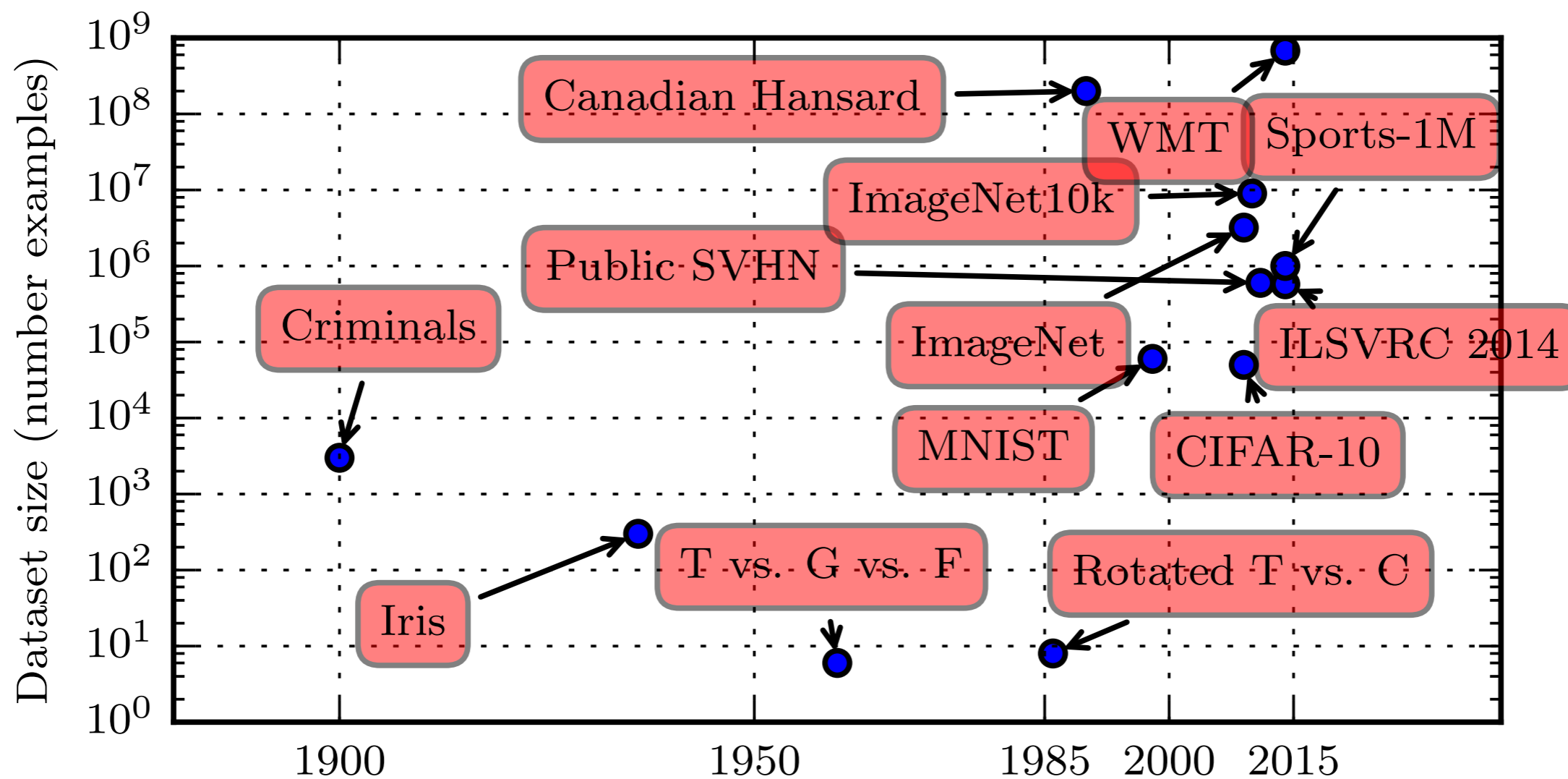


Figure 1.8

The MNIST Dataset

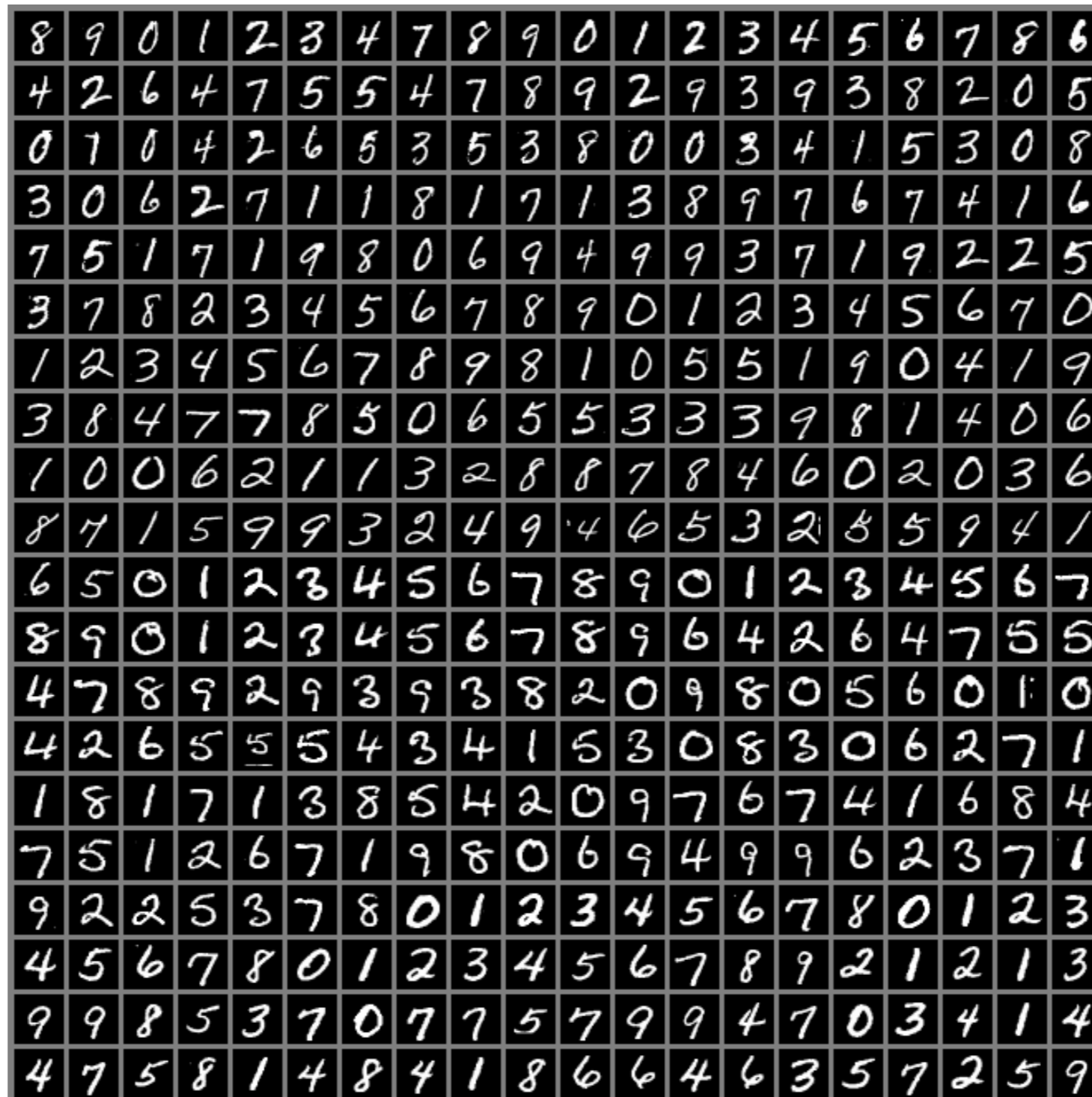


Figure 1.9

Connections per Neuron

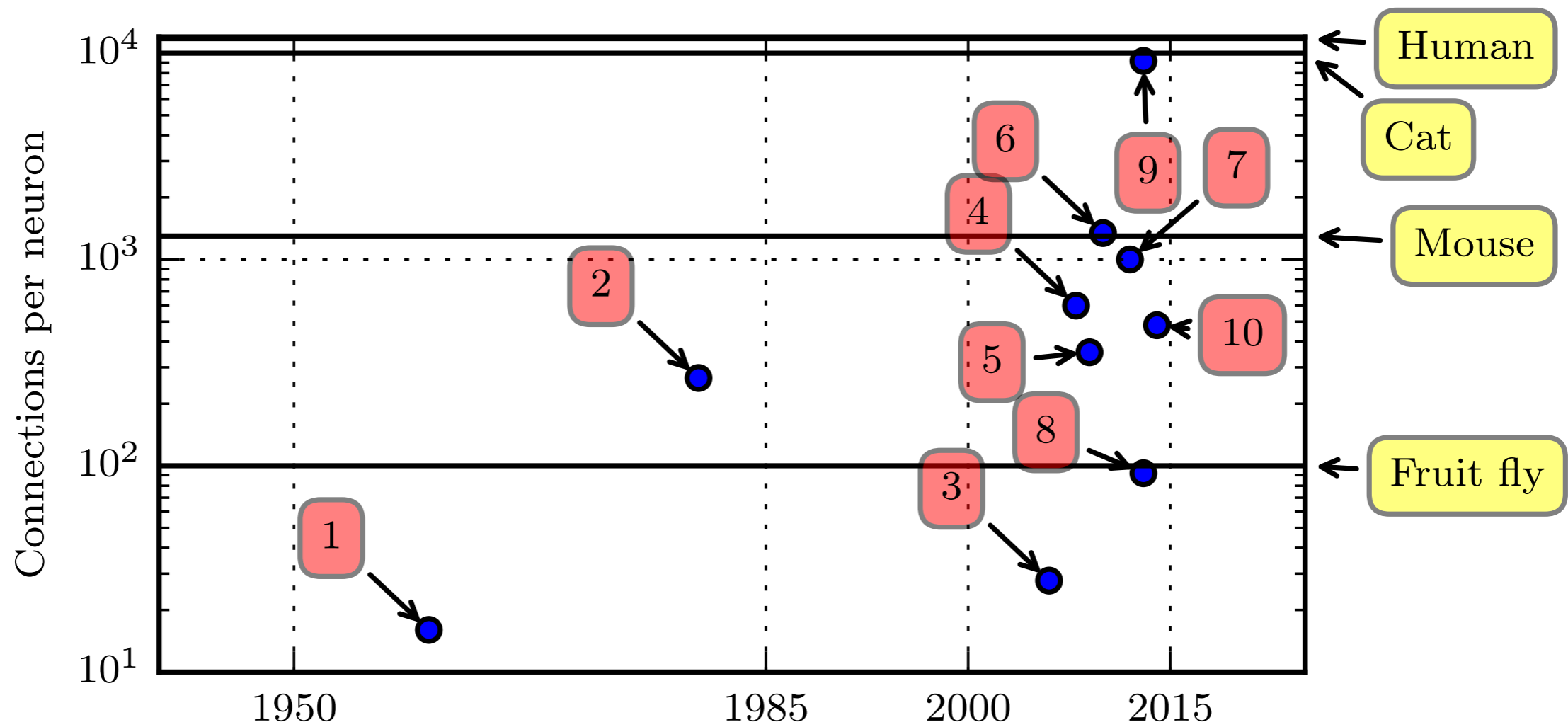


Figure 1.10

Number of Neurons

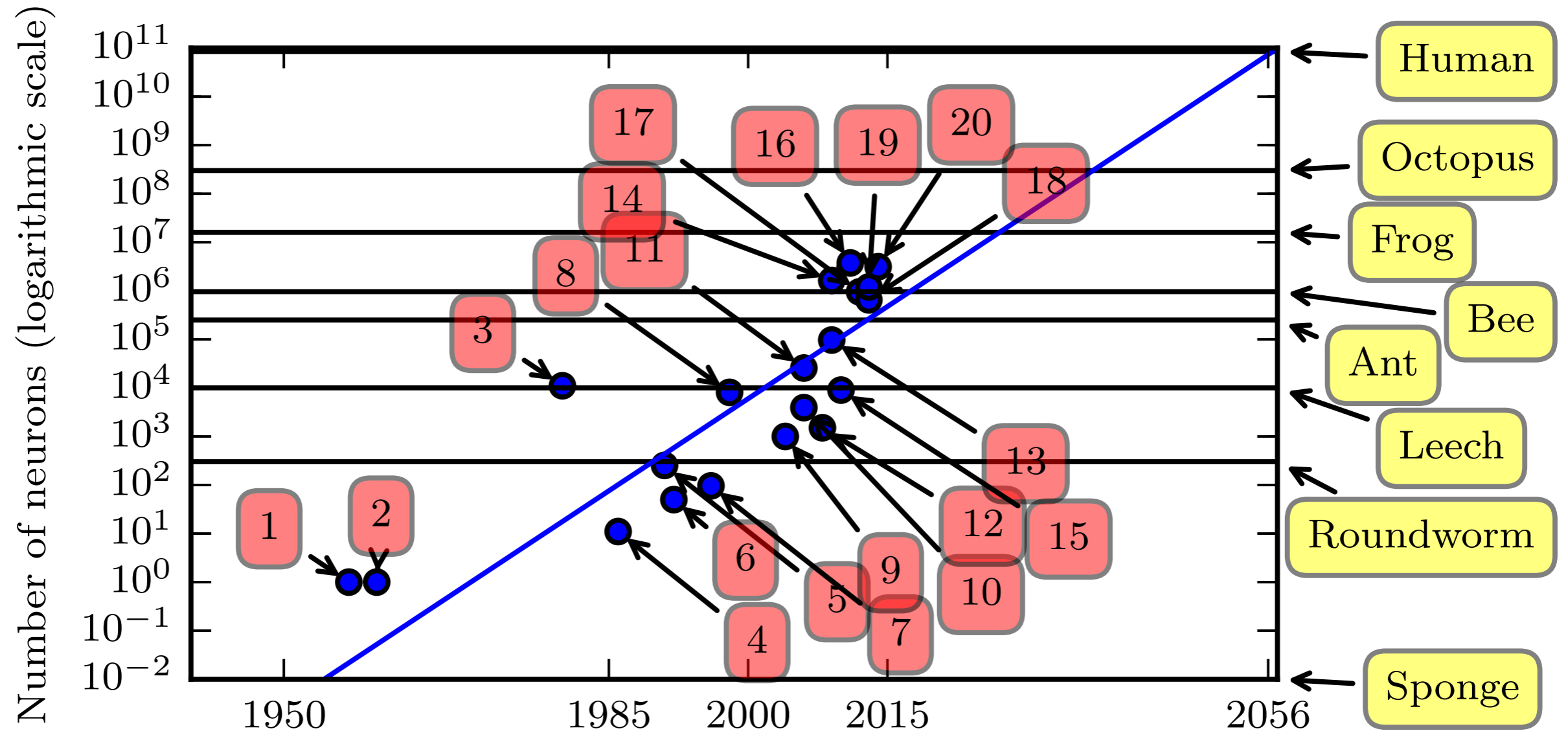


Figure 1.11

Solving Object Recognition

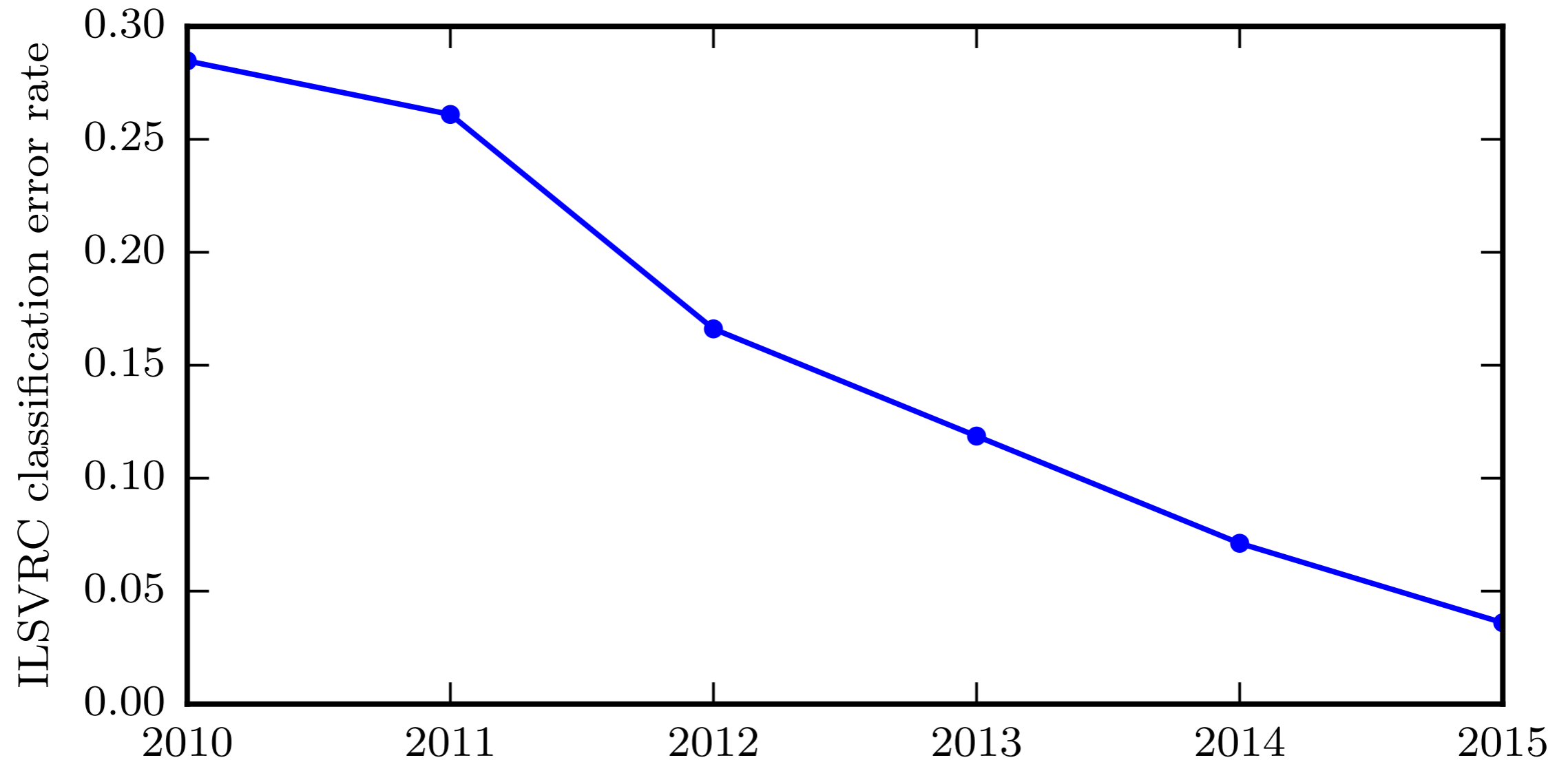


Figure 1.12